

State of Oregon Department of Environmental Quality (DEQ)
NPDES General Permit No. 1200-Z (Effective July 1, 2012)

STORMWATER POLLUTION CONTROL PLAN (SWPCP)

Prepared for:



12005 North Burgard Road
Portland, OR 97203
(Multnomah County)

Mailing Address:
PO Box 10047
Portland, OR 97269-0047

Owned and Operated by Same

NPDES General Permit 1200-Z File No. 108103

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February 2012

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A. STORMWATER POLLUTION CONTROL PLAN (SWPCP)

This document provides a Stormwater Pollution Control Plan (SWPCP) pursuant to the requirements of the Oregon Department of Environmental Quality (DEQ) National Pollutant Discharge Elimination System (NPDES) Stormwater Discharge General Permit 1200-Z (the '1200-Z') that will become effective on July 1, 2012. This new 1200-Z will remain in effect for five (5) years, until June 30, 2017, and will replace the previous 1200-Z Permit that was effective between July 1, 2007 and June 30, 2012. A copy of the updated 1200-Z is provided as Appendix 1. Copies of any applicable city, county or other jurisdictional requirements are provided in Appendix 2.

The objectives of this SWPCP are: 1) to identify potential sources of pollution at the facility which could adversely affect the quality of the stormwater discharges from the site, and 2) to describe appropriate pollution control measures and best management practices (BMPs) that will address the identified potential pollution sources and stormwater quality requirements for this facility. Control measures include active potential source isolation and abatement, as well as support programs such as periodic facility inspection programs and detailed recordkeeping and reporting procedures. These measures will assist the compliance staff in maintaining compliance with the terms and conditions of General Permit 1200-Z.

This revised SWPCP is prepared for **Schnitzer Steel Industries, Inc.** (SSI) and is intended to replace SSI's current plan dated July 2011 (See A.2 below).

NPDES General Permit 1200-Z File Number: **108103** Permit Number: **ORR600289**

Street Address: 12005 North Burgard Road, Portland, Oregon 97203

Mailing Address: PO Box 10047, Portland, Oregon 97296-0047

County: Multnomah

Primary SIC Code: 5093 (Scrap and Waste Materials)

Latitude: 45° 36' 32.0" N

Longitude: 122° 46' 23.5" W

Total Acreage: 84.5 acres

A.1 Permit Eligibility

The NPDES program specifies certain Standard Industrial Code (SIC) categories [40CFR §122.26(b)(14)(i-ix, xi)] for which discharge permits are required. Any facility falling within such a category, and from which stormwater leaves the site and enters surface water through a "point source," must apply for a stormwater discharge permit under the NPDES system. These facilities are also required to prepare and implement a Stormwater Pollution Control Plan.

Table I: Sources Covered, of the 1200-Z, lists the SIC Codes that are required to be permitted. SSI has an industrial activity Standard Industrial Classification (SIC) code of 5093 (Scrap and Waste Materials), and is, therefore, required to be permitted under the 1200-Z.

SSI was permitted under the 1200-Z on November 26, 2007, and currently operates under NPDES Permit File No. 108103 (Permit #ORR600289). A Copy of this Permit is included in Appendix 3.

The July 2011 revision of this SWPCP was prepared pursuant to a City of Portland Environmental Services Stormwater Site Inspection of the facility conducted on April 14, 2011. All items noted in the inspection were addressed in the revised SWPCP along with a description of the proposed facility modifications. A copy of the City of Portland inspection report is included in Appendix 4 for reference. This revision (February 2012) was prepared pursuant to the new 1200-Z Permit that will be effective between July 1, 2012 and June 30, 2017.

A.2 Renewal Application Requirements

For facilities that DID NOT exceed benchmarks based on the 4th year benchmark evaluation of data collected by July 2011 pursuant to Schedule A.10 of the 1200-Z permit that expires in June 2012

The facility (SSI) did not exceed benchmarks based on the 4th year benchmark evaluation of data collected by July 2011. Therefore, to ensure uninterrupted permit coverage for industrial stormwater discharges, the facility, which is registered under the 1200-Z permit that expires on June 30, 2012 (see Section A.1 above), must submit a complete renewal application to DEQ or Agent by March 31, 2012 (unless a later date is approved in writing by DEQ or Agent) that includes the following:

- DEQ-approved renewal application form (Appendix 3);
- DEQ Industrial Stormwater Permits SWPCP Checklist (Appendix 15); and
- One paper copy and one electronic PDF of an updated SWPCP that meets the requirements of the new permit (this revision). If an Agent is receiving the application materials, submit two copies of the SWPCP.

Prior to granting the applicant registration under this permit, DEQ will provide a 30-calendar day public review period. The applicant will be notified in writing by DEQ if registration is approved or denied. If registration is denied or the applicant does not wish to be regulated by this permit, the applicant may apply for an individual permit in accordance with OAR 340-045-0030.

A.3 Description of Facility Operations

The primary industrial activity conducted at the facility is ferrous scrap metal recovery and recycling. Scrap metals are delivered to the site from private and commercial parties by truck, rail or barge, and are weighed, graded and sorted on-site. Scrap metals may be resized by shredding, shearing or torching, and are ultimately shipped off-site by truck, rail, barge or ship for use as feed stock in domestic or foreign steel mills.

Once approved (see Appendix 5 – Scrap Acceptance Guidelines) and weighed, the scrap material is either processed immediately (e.g., in the shredder or shear, depending on the grade of the material) or is staged for future processing or off-site transfer. Materials processed in the shredder include automobile and appliance hulks (all liquids having been previously drained), baled and loose tin and sheet metal, and other relatively thin metals. The shredder reduces the size of the scrap and separates the ferrous metals from the non-ferrous metals and non-metallics [Automobile Shredder Residue (ASR)] using a variety of means including magnetic and counter-current separators. The shear is used to resize steel plate, heavy-walled pipe, cable, and other relatively thick scrap using a hydraulic guillotine. Items not amenable to processing in either the shredder or the shear may cut by portable shears or by torch, or transferred off-site as-is.

Processed and unprocessed scrap is temporarily staged at the facility in outdoor piles until off-site shipment is arranged. The processed and sorted scrap is then loaded into trucks, rail cars, cargo containers, barges or ships for shipment off-site to domestic and foreign steel mills, where the material is melted and formed into new steel for the manufacture of new products. The ASR is loaded onto trucks for shipment off-site for use as an approved alternate daily cover material at appropriate Subtitle D landfills.

In addition to these primary facility operations, several support operations, including weigh scales, vehicle and equipment maintenance, steel remnant storage and sales, bulk material (e.g., pig iron, ferro-manganese, silica-manganese, etc.) storage and sales, and truck washing, are conducted at SSI. Materials related to these support operations that have the potential to adversely impact stormwater quality, including petroleum products, coolants (ethylene glycol), and waste liquids (oils, coolants, hydraulic fluids, etc.) are stored either indoors or outdoors under overhead coverage and within secondary containment. Steel, pig iron, manganese, and similar bulk materials are stored outdoors in paved areas divided by steel retaining walls.

A.3.b Facility Location and Site Description

The Schnitzer Steel Products (SSI) facility occupies approximately 84.5 acres (of which 67.8 acres are impervious) of upland in the Burgard Industrial Park between the Willamette River and North Burgard Road in Portland, Oregon. The Willamette River forms the western boundary of the site, and a marine vessel berthing slip, which is a man-made appendage of the river, bounds most of the facility on the north. SSI owns the property on the south side of the berthing slip and the land east and northeast of it. This northeast section is a non-industrial section of the facility used mainly for site/berth access and parking. All of the industrial activity at SSI takes place on the main section of property south of the berth and east of the river. To the east of the main site area and south of the northeast section is an adjacent facility, Northwest Pipe & Casting Company. Lampros Steel owns the property east of the northeast section. Jefferson-Smurfit Corporation owns the property on the north side of the berthing slip. Bordering the south of SSI's property is Terminal 4, which is owned and operated by the City of Portland. All land borders of the site are fenced from adjoining properties. Neighboring properties are not addressed in the plan except to the extent that their discharge may affect discharges from the outfalls associated with SSI. SSI is in continuing communication with these facilities regarding issues related to stormwater management.

The site can be accessed by land from North Burgard Way into the northeast section of the site, but the main access road (which is for customer traffic only) comes in from the southeast off of North Burgard Road, which turns into North Lombard Street. The access road runs south of the Northwest Pipe property. Ships and barges have access to the site from the berthing slip. There are two rail spurs of Union Pacific that allows railcars to enter the site. The southern spur enters the site at the same place as the main access road and runs parallel to the south border and then north parallel to the river west of the shredder. This spur has its own spurs that veer north to west and east, and also, to the south end of Building B. The northern spurs enter the site south of the northeast section along the northern border of the Northwest Pipe & Casting property. These spurs split into four separate spurs that parallel the Berthing Slip and run north and south of the shear area. The southernmost of these east-west spurs connect to the two spurs that run east and west of Building B from the south and the line that runs parallel to the Willamette River on the west side of the property. **Railcar Loading/Unloading Areas** are located on the east and west sides and southern end of Building B; along the berthing slip east and west of the Shear; in the northwest section of the site; on the east end of the shredder and in the southwest area of the site. Railcars are generally used for shipping and receiving of scrap metals, non-ferrous metals, hulk automobiles and ASR. See the General Location Maps in Appendix 6 and site maps in Appendix 7 for more detailed information.

The facility is predominantly paved (asphalt or concrete) and includes two large warehouses, several modular office buildings, a lunch/locker room, and two scale houses. The main warehouse, known as **Building B**, is located along the eastern boundary of the site. A large, paved parking area is north of Building B, and north of the parking lot is an unpaved area used for equipment storage (an area formerly occupied by the Mold Loft building, which was demolished in 2011). The northeast section of Building B contains the **Maintenance Area** and **Maintenance Bay** and outside, along the north end of the east side of the building, is a secondary containment area (8.5' x 50' x 0.4' deep) for tanks and 55-gallon drums. It contains: One **1,000-Gallon Used Oil AST** (4' x 10'); one **300-Gallon Used Oil AST**; one **300-Gallon Used Oily Water AST**; one **300-Gallon Heavy Lube Oil AST**; three (3) **550-Gallon Motor & Hydraulic Oil ASTs** (which are mounted horizontally and have pumps and lube guns attached to the fronts); and a 7.5' x 13' area for **55-Gallon Drum Storage** (multiple drums containing various oil-based chemicals). There are **Spill Kits** located on the north and south ends of the containment area, and inside Building B, near the Maintenance Bay. The secondary containment unit is also covered by an overhead extension of the building, which runs along the entire east face of the building. The **Oil Loading/Unloading Area** is under this overhang near the containment area.

Inside the Maintenance Area, in the northeast corner of Building B, is a **275-Gallon Antifreeze AST**, and a **55-Gallon Drum Storage Area** for antifreeze (2 drums) and motor and hydraulic oils (4 drums), which are kept in secondary containment units. In the north and south central areas of Building B are two (2) concrete secondary containment areas, each holding three (3) **80-Gallon High Dielectric Fluid ASTs**. Another Spill Kit is located in the southeast corner of Building B. Any spills inside Building B are directed to floor drain sumps, which are not connected to any catch basin system. These floor drain sumps, if utilized to collect spilled materials, would be pumped out by the facility vac-truck and transferred into drums, sampled and profiled, then shipped off-site as

hazardous waste, if designated as such. Building B is also used for **ASR Storage**; and there is an **ASR Load-out Area** under the overhang on the center east side of the building. The southwest corner of Building B has a room for **Inadvertent Hazardous Materials Storage (Bay 31)** for unaccepted hazardous materials that are discovered in inbound loads of scrap. This material is shipped off-site as needed to contractors that will safely manage it. Company offices are located on the north end of Building B.

West of the buildings, in roughly the center of the site, is the **Shredder System** and related equipment, such as the **Magnet Separators, Countercurrent Separators, In-Feed Conveyors** and **ASR & Ferrous Discharge Conveyors**, the **Shredder Maintenance Building**, and areas for the accumulation of discharged metal scrap and ASR. The system runs roughly from the east-northeast to the west-southwest. The east end of the Shredder System is the **Material Loading Area**, and there is a **Dock/Weigh Scale** and a **Truck Loading/Unloading Area** north of this end. The west end of the Shredder System is where the ASR Discharge Conveyor discharges ASR in approximately a 90° arc northwest of Shredder, and the Ferrous Discharge Conveyor deposits ferrous metals in a similar arc southwest of the Shredder. Inside the Shredder Maintenance Building, which is just north of the central area of the Shredder, are three (3) **450-Gallon Hydraulic Oil ASTs** (1.5' x 7' x 2.3' H), one **230-Gallon Hydraulic Oil AST** (2.65' x 5.95' x 2.3' H), and one **140-Gallon Gear Oil AST** (2.2' x 5.95' x 1.45' H). There is a Spill Kit located inside this room to be used for any oil spills or leaks. Also within this room is **Water Well #2 (WW-2)**. This is the only active Water Well on-site. Water from this well can be pumped into Water Spray Trucks and used for dust suppression, or when Process Water in the holding tanks is low, it can be used as a reserve. West of the Shredder Pump Room is the **Shredder Substation**, which is a concrete walled area that contains one **250-Gallon Dielectric Fluid AST** and one **150-Gallon Dielectric Fluid AST**.

The area immediately surrounding the Shredder System (approximately 5.1 acres) is paved with asphalt and contains numerous catch basins piped to a closed-loop collection and treatment system (**Retention Basin R1**). At the southwest end of the Shredder Area is the **Process Water Settling Pond**, which is a 75' x 50' x 20' (75,000 ft³ or 561,000+ gallons) concrete basin structure that collects recycled storm water and settles and screens out solids from it before being transferred to a **1,000,000-Gallon Process Water Holding Tank**, which is located south of the Settling Pond, before being recycled back to the Shredder System to facilitate the shredding of metals as process cooling water. Before being used as process cooling water, process water is pumped from the Million-gallon Holding Tank to a **75,000-Gallon Process Water Day Tank** and then it is pumped to the Shredder System. This tank is located northeast of the Settling Pond.

Northwest of the Process Water Holding Tank is a **1,000,000-Gallon Stormwater Holding Tank**, which collects stormwater from the series of stormwater catch basins and drainage pipes in **Retention Basin 2**. Water in this tank can be pumped into **Water Spray Trucks** to be used for dust control at the site or it can be transferred to the 1,000,000-Gallon Process Water Holding Tank, if necessary, when normal Process Water is running low. If there is excess stormwater accumulated in this tank and it is not required for Process Water, it can be sampled and discharged through **Outfall 2** along the Willamette River in accordance with the sampling requirements. See more detailed information about the stormwater collection systems in Section A.3.b.i.

The areas of the site south of the Shredder System are primarily areas for processed and unprocessed **Metal Scrap** and **Bulk Metal Piles** and **Automobile Hulk Storage**. The shredder used to be located in this area until it was moved to its present location. There is also an abandoned conveyor system that led to now abandoned docks on the Willamette River west of this area. The conveyor system is scheduled to be removed. There is also a Water Well (**WW-1**) in this southwest section of the site that was used for the old shredder. This well is no longer used and has had a steel plate welded on top of it so that the well can be protected from stormwater contamination.

Just north of the Dock/Weigh Scale (north of the Shredder) is the **Truck Wash Area**, which is a small, covered concrete pad. A **1,000-Gallon Diesel Fuel AST** in secondary containment is on the north end of the Truck Wash Area. North-northeast of the Truck Wash Area is the **Fueling Island**, where one **1,000-Gallon Diesel Fuel AST** and one **1,000-Gallon Gasoline AST** are kept within concrete secondary containment. Loading and unloading of these fuels occurs at this island. Northwest of the Fueling Island is the **Shearer Substation**, which consists of two more concrete secondary containment areas, one for a **323-Gallon Dielectric Fuel AST** and the other for a **730-Gallon**

Dielectric Fuel AST. Just west of these containment areas is the **Lunch/Locker Room** building. Between the Truck Wash Area and the Lunch/Locker Room is another outdoors area for **Miscellaneous Metals Storage**. There are a few concrete 3-walled storage pads that serve this purpose here.

The **Shearer Equipment** is located north of the Shearer Substation, on the other side of one of the several internal native soil roadways on-site. The Shearer Equipment is located on a concrete area, and includes a **Conveyor Belt**, a **Motor Room**, and loading and off-loading areas. Hydraulic oil pipelines for the Shearer run underground from the Shearer Substation to it. The Motor Room contains a **5,230-Gallon Hydraulic Oil Reservoir** for the Shearer, a **300-Gallon Lubrication Oil AST**, and a Spill Kit. On top of the roof over the Motor Room is a covered **420-Gallon Hydraulic Oil AST**. The ASTs are within secondary containment. The Shear Equipment sits just south of the center area of the berthing slip.

The **Shipping Berth** is used to unload and load raw materials and processed metals from and to barges and ships with the use of three **Cranes** that are located along its edge. A large crane is positioned on the western end of the berth and two smaller cranes are at the center and eastern edge of the berth. There are three Spill Kits located on the berth, each near one of the cranes. At the east end of the berth is the northeast section of the facility. The only structure in this area is an **Electrical Substation** that contains one **2,229-Gallon Dielectric Fuel AST** and one **2,872-Gallon Dielectric Fuel AST** within a concrete-walled area.

Finally, in the northwest corner of the site, south of the west end of the Shipping Berth, is the new **Water Treatment Facility**, which will include two **Stormwater Surge Tanks (500-Gallons)** that will be used to treat and discharge or recycle storm water from the northern areas of the site, including the Shear Area, the Berth Area and the Shredder Area. Additional information about this facility is given in Section A.4.a.

See the Site Map in Appendix 7 for locations of the items described above, as well as the following features:

- Drainage patterns;
- Drainage and discharge structures;
- Catch basins
- Sumps
- Water wells
- Storm sewer piping;
- Outfalls;
- An outline of the drainage area for each stormwater outfall
- Paved areas and buildings within each drainage area
- Areas used for outdoor manufacturing, treatment, storage, and/or disposal of significant materials (no disposal occurs at the site);
- Spill kit locations
- Structural controls for reducing pollutants in stormwater run-off:
 - Treatment facility and surge tanks
 - Stormwater holding tanks
 - Oil/water separators
 - Containment booms
 - Grease traps
- Material loading and access areas
- Hazardous waste treatment, storage and disposal facilities (Note: A small, enclosed hazardous waste storage area is maintained inside Building B's Bay 31 to contain inadvertently received hazardous materials);
- Locations of wells, including waste injection wells (not applicable); seepage pits (not applicable), dry wells (not applicable), and monitoring wells (6 located on-site); and
- Locations of springs, wetlands and other surface water bodies

A.3.b.i Stormwater Drainage

Stormwater runoff at the SSI facility is collected on-site in a series of catch basins and a connection of stormwater drainage pipes that are directed toward the treatment facility, recycled in the shredder system or directed to one of the nine (9) active outfalls on-site. Each of the outfalls serves a specific drainage area within the facility boundaries, as shown on the drainage basin and outfall site map in Appendix 7. In addition, there are several remnant outfalls at the site related to historic operations that no longer discharge stormwater. Table A-1 below presents a summary of each of the outfalls at the facility, the activities conducted in the associated drainage areas, and the significant materials present in each drainage basin.

In addition to the facility drainage basins served by the outfalls in Table A-1, precipitation incident in three other drainage basins (R1, R2 and R3) is collected, filtered or settled, and recycled and used in the scrap processing (shredding) operations at the site. These recycle basin areas are described below:

- Recycle Basin R1: This basin area (5.1 acres in total) completely surrounds the shredder processing area and is 100% paved. There are 10 catch basins capped with storm grates that are connected via underground stormwater drainage pipes that lead to the concrete Process Water Settling Pond in the southwest corner of this basin. Water that collects in the Settling Pond flows through filters and solids are allowed to settle at the bottom. An above floor pump pumps the filtered and settled water to the 1,000,000-gallon Process Water Holding Tank south of it, and water from this tank is redistributed to the 75,000-gallon Process Water Day Tank, before it is used as process cooling water for the Shredder. This process cooling water either evaporates after use or is redirected back into catch basins in this closed-loop system. In addition to shredder operations, this area is used for staging of unprocessed scrap items, processed scrap and ASR. Because stormwater alone is not capable of providing sufficient water to fulfill the need for shredder process water during most of the year, water also may be transferred from the 1,000,000-gallon Stormwater Holding Tank (which collects stormwater through a drainage system in Basin 2), from Water Well #2 (which is inside the Shredder Maintenance Building), or from the city water supply. Water from the Stormwater Holding Tank or Water Well #2 can also be used to fill water spray trucks used for dust control on the property.
- Recycle Basin R2: This basin area (0.7 acres) is another concrete paved area that surrounds the Fuel Island. There is one catch basin in the southern part of this basin. Water collected in this basin is also piped to the shredder process water closed loop system to be recycled as shredder process cooling water. In addition to the fuel island, this area is also used for the storage of scrap electrical cable and for maintenance of large equipment.
- Recycle Basin R3: This basin is basically the concrete slab (0.3 acres) that underlies the Shear System and is served by a large sump which collects stormwater. The sump is pumped to the shredder process water closed loop system to be recycled as shredder process cooling water.

A.3.b.ii Significant Materials and Potential Stormwater Pollutants

The 1200-Z requires the SWPCP to include a description of “significant materials” at the site which may be exposed to stormwater. For the purposes of the permit, “significant materials” are defined as including, but not limited to, “raw materials; fuels; materials such as solvents, detergents and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Section 101(14) of CERCLA; any chemical that a facility is required to report pursuant to Section 313 of Title III SARA; fertilizers; pesticides; and waste products such as ash, slag and sludge that have the potential to be released with stormwater discharges.

Significant materials and potential stormwater pollutants that might be expected at the SSI facility include the following:

- Ferrous (iron) metal scrap and steels; bulk iron as iron particles or rust

Table A-1: Site Drainage Basin & Outfall Summary

Active Outfall No.	Drainage Basin(s) Served	Drainage Area Activities	Potential Pollutants	End of Pipe Treatment	Impervious Area (%) (Estimate)	Sampling Frequency
1	1	Entrance roadway; weigh scales; vehicle parking; car hulk storage; bulk metals storage; non-ferrous metals storage; truck loading/unloading; trash collection	Oils, fuels, grease & other petroleum products; antifreeze; rust; metals (ferrous & non-ferrous); TSS	Coalescing plate oil/water separator	70%	See Table B.3
2	2 (+ 13, 14, 15 & 16 in Phase 2 – See Note 3)	Steel storage; ASR storage; bulk metals (e.g., pig iron) storage; vehicular traffic; water treatment; ship/barge/truck loading/unloading; oils/fuels loading/unloading; trash collection	Oils; grease; diesel fuel; gasoline; other petroleum products; antifreeze; metals (ferrous & non-ferrous), ASR; rust; TSS	Catch basin filters; debris separator; 80-micron Amiad screen separator; stormwater holding tank (1,000,000-gallon)	100%	See Table B.3 and Note 5 below
13	13	Ship/barge loading/unloading by crane (scrap, steel, other metals); dock activities; torch-cutting of metals	Oils; grease; hydraulic fluids; metals (ferrous & non-ferrous); TSS	Eight-stage oil/water separator	100%	See Table B.3 and Note 3 below
14	14	Ferrous scrap storage; ASR storage and handling; vehicular traffic on unpaved roadway	Oils; grease; vehicular fluids; ASR residues; ferrous metals; TSS	Catch basin filter; Coalescing plate oil/water separator	80%	See Table B.3 and Note 3 below
15	15	Ship/barge loading/unloading (steel, metal products) by crane; dock activities; torch cutting of metals	Oils; grease; hydraulic fluids; ferrous & non-ferrous metals; TSS	Eight-stage oil/water separator	100%	Not Sampled (See Notes 7 and 3)
16	16	Oil, antifreeze, & petroleum products drum & tank storage and loading/unloading; ASR truck loading; non-ferrous scrap receiving/storage; maintenance activities; vehicular traffic; parking	Oils, petroleum products; antifreeze; solvents; degreasers; ASR residues; non-ferrous metals; vehicular fluids; TSS	Catch basin filter; Coalescing plate oil/water separator	70%	Not Sampled (See Notes 7 and 3)
19	19	Vehicular traffic; parking; electric substation	Oils, grease, TSS	None – No industrial activities	40%	Not Sampled (See Note 4)
20	20	Vehicular traffic; parking	Oils, grease, TSS	None – No industrial activities	20%	Not Sampled (See Note 4)

Special Notes to Table A-1 and Catch Basin Layout Map (Appendix 7):

- Former Outfalls 5, 6, 7, and 8 were abandoned after completion of Phase 1 of the new Water Treatment Facility in September 2009 and rerouted to Retention Basin 2. All of the discharge pipes have been removed or cut out and grouted. These outfalls are shown on the site map supplied with the original December 2009 SWPCP. They are shown but not referenced by number on the revised February 2012 Catch Basin Layout map.
- Former Outfall 17 is a remnant of the historical shipyard. It is no longer connected to any catch basin at the site and does not discharge stormwater. Its location is still shown on the February 2012 Catch Basin Layout map.
- For Phase 2 of SSI's Water Treatment Facility (scheduled completion in 2011) Outfalls 13, 14, 15 and 16 will be closed and rerouted into one system which will lead to the new water treatment facility in Basin 2 and the 1,000,000-gallon Stormwater Holding Tank.
- Outfall 18 serves Northwest Pipe & Casting Company and adjacent properties and is permitted separately. It is not sampled. Outfalls 19 and 20 are non-industrial outfalls and are not sampled.
- Discharge to Outfall 2 from the 1,000,000-gallon Stormwater Holding Tank may only occur when tank storage capacity requires it. As this may occur less frequently than 4X per year, collected water in the holding tank shall be sampled during discharge, in order to meet 1200-Z sampling requirements.
- Drainage basins R1, R2 and R3 all serve the closed loop recycling system for the shredder. Excess water is pumped from the Settling Pond (which has a debris separator and filtration screening) to the 1,000,000-gallon Process Water holding tank for later recycle use in this system.
- Outfalls 13 and 15 are considered identical outfalls, as they both drain basins with similar activities on the loading docks. Outfall 13 will be chosen as the sample point for these identical outfalls. Outfalls 14 and 16 have also been considered identical outfalls, with Outfall 14 being chosen as the sample point.
- Visual monitoring of each outfall for signs of floating solids; visible sheens or discoloring; or signs of malfunctioning equipment or treatment shall be conducted at each outfall on a monthly basis during a precipitation event.

- Non-ferrous metal scrap (aluminum, copper, manganese, zinc, etc.) and metal alloys (brass, bronze, etc.) as metal dusts
- Automobile shredder residue or ASR (shredded plastic, fabric, carpet and rubber residuals from the shredding of automobiles)
- Gear, lube and hydraulic oils; grease; dielectric fluid; transmission fluid & other petroleum products
- Diesel fuel and gasoline
- Antifreeze (ethylene glycol)
- Trash and debris; roadway dirt (total suspended solids – TSS)

Both new and used vehicle maintenance fluids (oils, hydraulic fluids, antifreeze, etc.) are stored in drums and above-ground storage tanks (ASTs) either inside an enclosed building or within a secondary containment area. Potential contact of these materials with stormwater would be limited to leaks from vehicles or equipment, or potential spills. Table A-1 lists the potential pollutants for the outfalls and drainage basins at the facility.

A.4 Site Control Measures

The permit registrant must select, design, install, implement, and maintain the control measures to meet the narrative and numeric technology based effluent limits in Schedules A.1, A.2 and E of the Permit and described below. The purpose of these controls is to eliminate or minimize the exposure of pollutants to stormwater or to remove pollutants from stormwater before it discharges to surface waters. In selecting the appropriate control measures to meet these limits, the facility may consider the age of the equipment and facilities involved, the processes employed, the engineering aspects of the application of various types of control techniques, the pollutant reductions likely to be achieved, any adverse environmental or energy effects of potential measures, and the costs of achieving pollutant reductions.

The control measures must be selected, designed, installed, implemented and maintained in accordance with good engineering practices and manufacturer's specifications. Justification for any deviation from the manufacturer's specifications of any control measure must be provided in this SWPCP.

DEQ or Agent may require the facility to take corrective actions to meet the narrative and numeric technology-based effluent limits in Schedules A.1, A.2 and E of the Permit. If the facility is failing to implement the control measures in this SWPCP, they must take corrective actions and implement the control measures prior to the next storm event, if practicable, unless otherwise approved by DEQ or Agent. If modifications to the control measures are necessary, the facility shall revise the SWPCP within 30 days, unless otherwise approved by DEQ or Agent, and implement them before the next storm event, if practicable, but no later than 60 days from discovering the violation, unless a later date is approved by DEQ or Agent.

A.4.a Narrative Technology-Based Effluent Limits

The permit registrant must employ the following types of best management practices that are appropriate for the site. A schedule for implementation of these practices must be included in the SWPCP if the practice has not already been accomplished. This schedule must be consistent with the requirements for implementing the SWPCP in Schedule C of this permit.

- Minimize Exposure – To the extent technologically available, economically practicable and achievable in light of best industry practice, exposure of manufacturing, processing, material storage and loading/unloading areas, disposal, cleaning, maintenance and fixed fueling areas to rain, snow, snowmelt and runoff must be minimized. The following practices should be utilized:
 - Locate materials and activities indoors or protect them with storm resistant covers (e.g., building roofs or temporary covers such as tarps) if stormwater from affected areas discharges to surface waters;

- Use grading, berms or curbing to divert stormwater away from these areas and prevent stormwater contamination;
 - Store all hazardous substances (see Schedule D.3 – Definitions) within berms or secondary containment devices to prevent leaks and spills from contaminating stormwater. If such storage is not possible, store hazardous substances in areas that do not drain to storm sewer systems;
 - Locate materials, activities and equipment (including leak-prone vehicles or vehicles awaiting maintenance) in containment and diversion systems to prevent leaks and spills from contaminating stormwater;
 - Use drip pans or absorbents under or around leaking or leak-prone vehicles/equipment or store indoors. Drain fluids from equipment and vehicles prior to on-site storage and disposal;
 - Perform cleaning operations indoors, under cover or in bermed areas that prevent runoff and run-on and also captures overspray;
 - Clean up spills or leaks promptly using absorbents or other effective methods to prevent discharge of pollutants and use spill/overflow protection equipment; and
 - Ensure that all wash-water drains to a proper collection system such as a closed-loop system or sanitary sewer and is not discharged to a stormwater drainage system unless the wash-water is an authorized non-stormwater discharge listed in condition 7 or the Permit Coverage and Exclusion from Coverage section of the permit.
- Oil and Grease - Oil/water separators, booms, skimmers or other methods must be employed to eliminate or minimize oil and grease contamination of stormwater discharges.
 - Waste Chemicals and Material Disposal - Wastes must be recycled or properly disposed of in a manner to eliminate or minimize exposure of pollutants to stormwater. All waste contained in bins or dumpsters where there is a potential for drainage of stormwater through the waste must be covered to prevent exposure of stormwater to these pollutants. Acceptable covers include, but are not limited to, storage of bins or dumpsters under roofed areas and use of lids or temporary covers, such as tarps.
 - Erosion and Sediment Control - Erosion control methods such as vegetating exposed areas, graveling or paving must be employed to minimize erosion of soil at the site. Sediment control methods such as detention facilities, vegetated filter strips, bio-swales, or other permanent erosion or sediment controls must be employed to minimize sediment loads in stormwater discharges. For activities that involve land disturbance, the permit registrant must contact the local municipality to determine if there are other applicable requirements.
 - Debris Control - Screens, booms, settling ponds, or other methods must be employed to eliminate or minimize debris in stormwater discharges.
 - Dust Generation and Vehicle Tracking of Industrial Materials – The generation of dust and off-site tracking of raw, final and waste materials must be minimized by methods such as regular sweeping, dust wet-down and the use of track-out grates between soil and paved areas.
 - Stormwater Diversion - Stormwater must be diverted away from fueling, manufacturing, treatment, storage, and disposal areas to prevent exposure of uncontaminated stormwater to potential pollutants.
 - Covering Activities – Fixed fueling, manufacturing, treatment, storage, and disposal areas must be covered to prevent exposure of stormwater to potential pollutants. Acceptable covers include, but are not limited to, permanent structures such as roofs or buildings and temporary covers such as tarps.
 - Housekeeping - Areas that may contribute pollutants to stormwater must be kept clean. Sweeping, litter pick-up, prompt clean-up of spills and leaks, and proper maintenance of vehicles must be employed to eliminate or minimize exposure of stormwater to pollutants.

- Spill Prevention and Response Procedure - Permit registrant must include in the SWPCP methods to prevent spills along with clean-up and notification procedures. These methods and procedures must be made available to appropriate personnel. The required clean-up material must be on-site or readily available and the location of materials must either be shown on the site drawings or indicated in the text of the SWPCP. Spills prevention plans required by other regulations may be substituted for this provision providing that stormwater management concerns are adequately addressed. SSI has a separate SPCC (Spill Prevention and Counter-Control Measures) Plan that addresses spill prevention and response procedures in detail (SPCC Appendix A). Spill kits are identified on site maps provided with this plan.
- Preventative Maintenance - Permit registrant must include in the SWPCP a preventative maintenance program to ensure the effective operation of all stormwater best management practices. At a minimum the program must include:
 - Monthly inspections of areas where potential spills of significant materials or industrial activities could impact stormwater runoff.
 - Monthly inspections of stormwater control measures, structures, catch basins, and treatment facilities.
 - Cleaning, maintenance or repair of all materials handling and storage areas and all stormwater control measures, structures, catch basins, and treatment facilities as needed upon discovery. Cleaning, maintenance, and repair of such systems must be performed in such a manner as to prevent the discharge of pollution.
- Employee Education - Permit registrant must develop and maintain an employee orientation and education program to inform personnel of the components and goals of the SWPCP. The program must also address spill response procedures and the necessity of good housekeeping practices. A schedule for employee education must be included in the SWPCP. The education and training must occur within 30 calendar days of hiring an employee who works in areas where stormwater is exposed to industrial activities or conducts duties related to the implementation of the SWPCP, and annually thereafter. Training is recorded on the Employee Training Record Form (Appendix 11). Completed Employee Training Record Forms should also be kept in Appendix 11.
- Non-Stormwater Discharges – Non-stormwater discharges not authorized by a NPDES permit (see condition 7 of the Permit Coverage and Exclusion from Coverage section of the 1200-Z) must be eliminated.

A.4.a.i Minimize Exposure

As noted above, containment measures, which involve isolating potential pollution sources from contact with stormwater, may be classified as both a source control and a structural control. Containment measures play an important role in stormwater pollution control at SSI and are generally considered to be the preferred mechanism for reducing or eliminating adversely impacted stormwater discharges. However, should a spill or any accident occur, it should be reported using an Incident Report Form (see Appendix 14). The following containment measures have been implemented at the facility to minimize exposure of significant materials to stormwater:

- To the extent possible, vehicle and equipment maintenance activities are conducted inside a fully enclosed, concrete-floored building (Maintenance Bay in Building B). The building floor slopes toward low spots in the floor that serve as blind liquid collection points. These drain sumps inside the building collect the spills, but are not connected to any catch basin system that discharges off-site. Facility vac-trucks will pump out these drain sumps if a spill or leak occurs. Vehicle maintenance outside of the building is conducted only in the event of an emergency, such as the failure of hydraulic systems, and is limited to activities necessary to ensure capture and containment of fluids and other significant materials. Outside equipment maintenance is limited to items that are not mobile or are too large to relocate indoors. Spill kits are available at two locations within Building B and at several locations outside (near the shredder, the shear, the cranes, loading/unloading areas, weigh scales and the truck wash area). Spill kits can be located on the site map in

Appendix 7. Oil absorbent materials are available in case of spills or leaks during maintenance and are disposed of appropriately and compliantly with third-party contractors.

- New and used motor oil, gear oil, hydraulic oil, dielectric fluids, antifreeze, etc., are stored in 55-gallon drums or above-ground storage tanks (ASTs) of various sizes and in various locations. (See site description in section A.3.b). All containers are either indoors or within secondary containment or both. Containers are elevated above the floor of the containment structure to facilitate detection and collection of spilled and accumulated liquids. Small quantities of these items may also be stored within the vehicle maintenance building, elevated on secondary containment pallets or placed in polyethylene or steel drip pans. Spill kits are conveniently located near all chemical storage areas.
- The paved area immediately surrounding the shredder (approximately 5.1 acres) is sloped toward catch basins (Retention Basin R1), which are piped to a concrete storage vault (Settling Pond). This vault also collects water from Retention Basins R2 and R3. Water collected in the vault is settled and screened, pumped to the Process Water Holding Tank and supplied to the shredder, as needed, as make-up cooling water to facilitate the shredding of metal materials. This make-up cooling water either evaporates in the process or is discharged with the shredded material, draining back into the catch basins in Basin R1 to be recycled and reused.
- A small paved area south of the shear (approximately 0.5 acre) which contains the fueling island is served by a catch basin (Retention Basin R2) which is also pumped to the shredder process water recycling system. Similarly, the concrete slab (0.2 acre) underlying the shear itself is served by a large sump which collects the stormwater (Retention Basin R3). This sump is also pumped into the shredder process water recycling system through a large oil/water separator (located near the lunch room).

A.4.a.ii Oil and Grease

Oil and grease separation is a structural control that is in extensive use at the SSI facility. There are five oil/water separators in use for stormwater treatment at the facility. Oil/water separators are paved, flow-through, multi-step chambers designed to separate floating oily products and sediments from the aqueous discharge stream. The oil/water separators vary in size and complexity, and are installed in-line with discharge lines prior to outfalls. These include the following:

- Drainage Basin 1 Oil/Water Separator: A coalescing plate oil/water separator is installed prior to Outfall 1. The drainage area served by this unit (Basin 1) includes the access road, weigh scales and truck and railcar loading/unloading areas for steels and non-ferrous metals, car hulk and remnant steel storage, and office parking. In addition to a sediment-retaining baffle, this unit includes a bank of coalescing media plates designed to facilitate the removal of oils from the discharge stream.
- Drainage Basin 13 Oil/Water Separator: There is one eight-stage oil/water separator that is located within the Basin 13 drainage system, located on the dock immediately east of the shear. For Phase 2 of SSI's new Water Treatment Facility (Summer 2012), this outfall will be closed off and looped to the Water Treatment Facility, but the oil/water separator will still be utilized. This drainage basin is used for the loading/unloading of metals and scrap from ships or barges docked at the berth or by railcars by crane; and the staging of scrap metals, torch-cutting of scrap metals, or resizing of scrap metals prior to being cut in the shear.
- Drainage Basin 14 Oil/Water Separator: Another coalescing oil/water separator is installed within the drainage system for Basin 14. It is located just east of the Mold Loft Building. For Phase 2 of SSI's new Water Treatment Facility (Summer 2012), this outfall will be closed off and looped to the Water Treatment Facility, but the oil/water separator will still be utilized. The area that this basin drains includes the inside drains on the west side of Building B (ASR storage area), the area just west of Building B and the Mold Loft Building, and dirt roads and rail spurs that pass through this area.
- Drainage Basin 15 Oil/Water Separator: There is one eight-stage oil/water separator that is located within the Basin 13 drainage system, located on the dock immediately east of the shear. For Phase 2 of SSI's new

Water Treatment Facility (Summer 2012), this outfall will be closed off and looped to the Water Treatment Facility, but the oil/water separator will still be utilized. This drainage basin is used for the loading/unloading of metals and scrap from ships or barges docked at the berth by crane; and the staging of scrap metals, torch-cutting of scrap metals, or resizing of scrap metals prior to being cut in the shear.

- Drainage Basin 16 Oil/Water Separator: A coalescing plate oil/water separator also serves this basin. It is located north of Building B and east of the Mold Loft Building. Activities that affect stormwater within this drainage basin include: The loading/unloading of drums of oils, antifreeze and other petroleum products either as 55-gallons drums or from tankers to fill ASTs; the loading of ASR for shipment by truck or railcar; loading and unloading of non-ferrous metals by railcar; maintenance activities; vehicular traffic and parking.

Oil/water separators are inspected on a monthly basis for build-up of sediments, grease and related materials. The chambers are pumped out and cleaned using the facility's vac-truck, as necessary.

Approximately 80% of the storm drain catch basins (there are around 100 of them) at the SSI facility are designed with inverted outflow pipes to trap oil and grease in the basin. The outflow pipes discharge water collected in the basin from below the water surface, essentially trapping oil, grease and other floating materials in the basin. These basins are located throughout the site, but are concentrated in areas of storage and operations (most of the non-grease trap basins are located along access roads and in parking areas).

Drip pans are placed beneath vehicles (in their designated parking area) and equipment that show signs of oil or fluid leakage. Oil absorbent socks and pillows are also used around leaky equipment. Small leaks or spills of oil or other petroleum products are cleaned up using dry absorbents, which are swept up and properly disposed of upon completion of the spill clean-up. Soils that have been impacted by small spills are removed and also given proper disposal. Detergents and solvents are not used to clean up petroleum product spills.

Numerous additional oil and grease separation control measures are in use at the facility related to the shredder process water system and other non-stormwater related activities that are not described here.

A.4.a.iii Waste Chemicals and Material Disposal

Management controls related to waste chemicals and material disposal include both source control and structural control options. SSI has instituted a Scrap Material Acceptance Policy that lists which materials are prohibited from being accepted from customers for recycle and items that will only be accepted when certain conditions are met [e.g., automobiles (from licensed automobile dismantlers) will only be accepted if ALL fluids, including refrigerants, fuels, hydraulic fluids, etc., are drained completely, and that tires, batteries and cable leads, lead wheel weights, mercury switches and un-deployed air bags are removed]. This Scrap Acceptance Policy is found in Appendix 5.

Although uncommon, waste items delivered improperly to SSI that are discovered after the scrap acceptance pre-screening are temporarily stored in compatible, labeled containers in a storage room in the southwest corner of Building B pending off-site shipment for disposal or recycling. This area is known as Bay 31. Additional items related to the management of unacceptable materials are included in Appendix 5.

Waste coolants and lubricants generated by SSI are accumulated in above-ground storage tanks (ASTs) or drums that are indoors or under overhead outdoor coverage in concrete secondary containment areas. They are periodically shipped off-site for recycling by licensed third-party contractors.

Waste containers are properly labeled, are kept closed at all times (except during material transfer), and are maintained in appropriate storage areas. Any containers that are damaged in shipment or in storage are promptly over-packed or the contents are transferred to a sound, compatible container and re-labeled.

Solvents and degreasers used in self-contained parts cleaners are filtered for re-use and waste solvents are transported off-site for recycling, when necessary.

A.4.a.iv Erosion and Sediment Control

The majority of the facility property (approximately 80%) is paved. The following measures have been implemented at the site to control sediment and erosion:

- All oil/water separators at the facility are equipped with either sediment weirs or elevated discharge pipes to trap sediments in a chamber of the unit.
- Accessible areas are swept using a vacuum/broom sweeper three times per week
- Vegetation has been allowed to take root in unpaved areas along the water banks to reduce erosion. In addition, rip-rap has been historically emplaced on the slopes of the river bank which may be prone to erosion due to wave action.
- Straw bales, drain filters, filter fabric and catch basin inserts are used to minimize the influx of sediment into stormwater catch basins and into the river, where appropriate.
- Facility-wide inspections are conducted at least once per month to identify areas of erosion, damaged pavement, and areas requiring sweeping.
- In areas where bulk material storage is conducted, drain covers may be emplaced during storage of materials or other activities which might contribute to suspended solids in stormwater run-off (e.g., fine particulates or dusty materials), as necessary.

A.4.a.v Debris Control

Considering the nature of facility operations, debris build-up is of significant concern. Although scrap recycling operations require the accumulation of both processed and unprocessed scrap metals in stockpiles, SSI personnel strive to ensure that only designated areas are used for these stockpiles, and that all roadways, railways, parking areas, work areas, and buildings remain free of accumulated debris. The following measures have been implemented at the facility to control debris:

- Accessible areas are swept using a vacuum/broom sweeper three times per week.
- Accessible areas are swept using a magnetic collector on at least a monthly basis.
- Covered trash dumpsters are placed strategically around the site to promote proper disposal of paper, wood, and other items that may be discarded during truck loading and off-loading.
- Two trailer sweep-off areas are designated along the access road to the facility to allow transporters to dispose of debris prior to exiting the site. Permanent three-sided bins are provided at each location to contain the debris. These bins are cleaned out on a weekly basis.
- Facility-wide inspections are conducted at least once per month to identify areas of debris build-up that need cleanup.

A.4.a.vi Dust Generation and Vehicle Tracking of Industrial Materials

- Site entrances will be stabilized by asphalt, concrete or equivalent to reduce the amount of sediment transported onto paved roads by vehicles or equipment by site operations.
- Wet vacuum sweeping will be conducted weekly at all the approaches and exits of the site.
- Watering of the entrances of the site will be conducted as a reasonable precaution against the generation of fugitive dust at the entrances. SSI will use water trucks on dry and dusty days when ambient temperatures are at, and forecasted to remain above, 32° F.
- A well-established vegetative cover will be used to reduce erosion from the shoulders of the concrete and asphalt covering wherever exposed soil is present alongside the road.
- Speed limit at entrances to the facility will be limited to 15 mph.
- Catch basin filter inserts will be used in catch basins in the immediate area around the entrances of the facility.

A.4.a.vii Stormwater Diversion

Stormwater diversion controls have been implemented at the site primarily as a means of ensuring that stormwater drainage in areas that may be prone to adverse impact is either recycled, or is directed through treatment systems (e.g., oil/water separators and sand filters) prior to discharge. The following stormwater diversion measures have been implemented at the facility:

- The area immediately surrounding the shredder (approximately 5.1 acres) is paved and provided with catch basins (Retention Basin R1) piped to a closed-loop collection and treatment system (the 75,000-gallon Process Water Settling, 1,000,000-gallon Process Water Holding Tank and 75,000-gallon Process Water Day Tank). The Settling Pond also collects stormwater from catch basins in Retention Basins R2 and R3. This water is used for make-up cooling water for the shredder.
- A small paved area south of the shear (approximately 0.7 acres) is served by a catch basin (Retention Basin R2) which is also pumped to the shredder process water recycling system.
- The concrete slab underlying the hydraulic shear is served by a large sump which collects stormwater (Retention Basin R3). The stormwater is pumped from the sump through two large oil/water separators (located near the Lunch/Locker Room Building), and is then pumped to the shredder process water recycling system for re-use.

A.4.a.viii Covering Activities

Activities and storage areas that are most prone to potentially adversely affecting stormwater quality are maintained under cover, either inside of the maintenance building, or in a roofed concrete secondary containment structure. These areas are further discussed in Section A.4.a.i above.

In addition, SSI has constructed a secondary separation system for the ASR that is completely enclosed within Building B. ASR from the shredder is loaded onto clump trucks and transferred to a large bin inside the building. A front-end loader then takes the ASR from the bin and feeds it into a hopper that delivers the material to shaker screens, separation equipment, and finally picking tables, to remove as much non-magnetic, non-ferrous metal as practical from the ASR. After passing through this system, the ASR is deposited in two large, elevated, bottom dump hoppers that ultimately discharge the material into trucks destined for the landfill. This system results in a substantial decrease in the amount of significant materials which would be exposed to incident precipitation or stormwater runoff at the site.

Covered storage and operations areas are inspected monthly to ensure that any significant materials stored or used in the areas are being properly contained and managed.

A.4.a.ix Housekeeping

Maintaining a clean and orderly job site is instrumental for controlling potential stormwater pollutants, as well as for ensuring a safe working environment. The following management practices related to good housekeeping are followed at the SSI facility:

- Accessible areas are swept using a vacuum/broom sweeper at three times per week, and are swept using a magnetic collector at least monthly. Paved areas are watered for dust control during dry periods.
- Trash dumpsters are placed strategically around the site to promote proper disposal of paper, wood, and other items that may be discarded during truck loading and off-loading.
- Two trailer sweep-off areas are designated along the access road to the facility to allow transporters to dispose of debris prior to exiting the site. Permanent three-sided bins are provided at each location to contain the debris. These bins are cleaned out on a weekly basis.
- Containers are properly labeled, are kept closed, and are maintained in appropriate storage areas. Any containers damaged in shipment or storage are promptly over-packed, or the contents are transferred to a sound container.

- Facility-wide inspections are conducted at least once per month to identify areas needing cleanup and general policing.

A.4.a.x Spill Prevention and Response

SSI maintains a written procedure which details the specific procedures to be followed in the event of a spill or release of oil, fuel, or other petroleum product at the facility in a separate Spill Response Procedures Plan (See Appendix 16), specifically in Appendix A of that plan. Potential causes of spills or leaks of significant materials at the facility could include container failures, equipment or vehicle leaks, and spills of shredded materials, ASR, and/or fuels or oils during handling or transport operations. Frequent inspections of storage, maintenance and processing areas, and inspections of vehicles and equipment are intended to identify potential problems areas, and to allow the timely detection of any spillage prior to adversely impacting the storm sewer system, or reaching surface waters.

Spill response equipment, including containment and absorbent booms, absorbent socks and pads, and related safety equipment, are maintained on-hand in spill kits placed in strategic locations throughout the site (See Site Map in Appendix 7).

Spill prevention and response provisions include the following:

- Operations personnel are equipped with radios and/or cellular phones to provide immediate communication in the event of an accidental release.
- Storm drain covers are available to block catch basins in the event of a spill which has the potential to reach a drain.
- Spill kits containing absorbent pads and booms, and other cleanup and safety supplies are placed in strategic locations throughout the site. Spill kits are inspected monthly for broken seals and if inventory has been used to clean up recent spills. Spill kit inspection forms are in Appendix 10.
- An adequate supply of absorbent and containment booms and similar items are available to contain and clean up any spilled materials. Spilled materials are cleaned up using dry methods whenever possible.
- Containers of liquids, including oils and other petroleum products, are stored within secondary containment, or are placed on spill containment pallets.
- Containers are periodically inspected to ensure that they are closed, properly labeled, and in good condition.

A.4.a.xi Preventative Maintenance

Preventive maintenance involves the regular inspection, cleaning and mechanical maintenance of vehicles, equipment, and stormwater management structures, as well as other activities designed to reduce the likelihood of spills and leaks. The following preventive maintenance provisions have been implemented at the SSI facility:

A vehicle and equipment inspection and maintenance program has been developed which includes the following:

- Regularly scheduled vehicle and equipment inspections focused on fluid leaks;
- Service and inspection checklists specific to each type of vehicle and major item of equipment;
- Maintenance logs detailing services performed on each vehicle and major item of equipment;
- Training requirements for personnel involved in vehicle and equipment operations, inspection, and maintenance;
- Major items of equipment that are stored or used outdoors are cleaned on a regular basis to remove accumulated oil and grease from exterior surfaces (except as necessary for proper operation).

Vehicle and equipment maintenance is conducted within the enclosed maintenance building, to the extent possible. See Appendix 9 for preventative maintenance schedules and BMPs.

During monthly site inspections, the inspector will determine whether potential pollution sources are being adequately controlled, and whether pollution controls specified in the SWPCP have been properly and effectively implemented.

Inspections will be documented using a Monthly Inspection Report (included in Appendix 10), which will include the dates of inspection, items inspected, problems or concerns encountered, and corrective measures implemented. The facility drainage areas described in Table A-1 will be included in the inspections, and the following items will be inspected, at a minimum:

- Containment structures, booms and berms, on a monthly basis, to ensure that they are intact and functional;
- Discharges from outfalls, on at least a monthly basis when occurring, to inspect for floating solids and sheen;
- Facility-wide inspections, at least once per month, to identify areas of erosion, damaged pavement, and areas requiring sweeping; and
- Oil/water separators, on a monthly basis, for buildup of sediments, grease, and related materials. The chambers are pumped out and cleaned using the facility's vac-truck, as necessary.

A.4.a.xii Employee Education

SSI has developed a comprehensive employee training program which includes practices and procedures related to stormwater management, pollution prevention, and spill control and countermeasures. Training is provided by the facility's environmental and safety staff, and includes the following:

- Information on the acceptability and unacceptability of certain types of scrap and other materials;
- Stormwater Best Management Practices (BMPs);
- Proper procedures for containing or otherwise isolating unacceptable materials and spills;
- Locations of spill response kits and other emergency equipment; and
- Proper notification procedures.

Training is documented using an Employee Training Record Forms (see Appendix 11). Employee training is conducted on an annual basis; new hires receive orientation training, which includes stormwater pollution prevention training, within 30 days of hire. Training Records are maintained for each employee for a minimum of five years, and are retained at the SSI Health and Safety office in the employee personnel files.

In addition to employee training, SSI strives to educate its scrap suppliers regarding scrap acceptability, both to prevent improper receipt of unacceptable materials, and to protect site stormwater from potential pollution sources. SSI has a written Scrap Acceptance Guideline (included as Appendix 5) which is distributed to suppliers in periodic mailings and in frequent hand-outs when entering or exiting the facility. The guideline identifies specific items that cannot be accepted, as well as particular preparation requirements for other items. The guideline is periodically reviewed and updated, and updates are communicated promptly to SSI's suppliers.

A.4.z.xiii Non-Stormwater Discharges

Routine monthly facility inspections are used to identify unauthorized non-stormwater discharges (See Section C.1 of this SWPCP for a list of authorized non-stormwater discharges). Immediate corrective actions are taken to eliminate any unauthorized non-stormwater discharge. Any identified non-stormwater discharge is cleaned up immediately and disposed of compliantly. The stormwater pollution prevention team (Section A.5) is then tasked with providing appropriate preventative measures to ensure the unauthorized discharge remains eliminated.

A.4.a.xiv Other Operational Controls

Significant operational controls are in place at the facility that exceed the specific requirements of the NPDES General Permit. These controls include the following:

- Periodic community outreach events are conducted in order to elevate the awareness of scrap suppliers toward SSI's stringent scrap acceptance policies. These events include signage posted at SSI, policy and guideline mailings, and visits to supplier facilities by SSI environmental and/or management personnel.

- An inbound material inspection program has been developed to minimize the potential for receipt of unacceptable materials (see Scrap Acceptance Guidelines in Appendix 5). The program includes the following:
 - Passage of every load of scrap entering the facility through a radiation detector.
 - Visual screening of every load of scrap received at the facility by scale-house personnel.
 - Visual screening of all scrap materials off-loaded from transport vehicles by equipment operators and ground personnel in the yard.
 - Periodic thorough inspections of off-loaded scrap from specific suppliers (on a rotating basis) by environmental or management personnel.

In the event that unacceptable or suspect materials are detected as a result of this program, the materials may be segregated from the scrap for proper disposal, may be returned to the supplier, or the entire load may be rejected. In any case, the supplier will be contacted and informed of the rejection, and the scrap acceptance guidelines will be reiterated.

A.4.b Sector N (Scrap Recycling and Waste Recycling Facilities)-Specific Technology-Based Effluent Limits

The requirements in Schedule E Subpart N shall apply to stormwater discharges associated with industrial activity from Scrap Recycling and Waste Recycling facilities as identified by the SIC Code 5093 specified in Table 1 of the Permit.

A.4.b.i Scrap and Waste Recycling Facilities (Non-Source-Separated, Non-liquid Recyclable Materials)

Facilities that receive, process, and perform wholesale distribution of non-liquid recyclable wastes (e.g., ferrous and nonferrous metals, plastics, glass, cardboard, and paper) are subject to the following requirements of the 1200-Z. Facility operations are applicable to the sections outlined below.

Inbound Recyclable and Waste Material Control Program

The facility minimizes the chance of accepting materials that could be significant sources of pollutants by conducting inspections of inbound recyclables and waste materials. The facility has a Material Acceptance Policy (Appendix 5) in place which specifies which materials the facility will and will not accept. The policy is provided to suppliers and vendors prior to any acceptance of materials on the facility's behalf. The facility also has implemented an inbound source control program; every load is inspected in accordance with the Material Acceptance Policy. Materials which do not meet facility requirements are rejected. Control measures implemented at the facility are identified in Appendix 9 of this SWPCP.

Outdoor Scrap and Waste Material Stockpiles and Storage

The facility minimizes contact of stormwater runoff with stockpiled materials, processed materials, and non-recyclable wastes. Control measures implemented at the facility are identified in Appendix 9.

Outdoor Stockpiling of Turnings Exposed to Cutting Fluids

The 1200-Z stipulates that contact between stormwater runoff and turnings exposed to cutting fluids must be minimized. As such, turnings exposed to cutting fluids must either be stored under coverage or stored within a dedicated storage area constructed of impermeable material and include a barrier to prevent stormwater run-on. SSI accepts turnings at the facility and stores them either indoors in Building B or on a concrete pad area in Recycle Basin R-2. Refer to the Site Map included in Appendix 7 and the Control Measures and BMPs in Appendix 8 for a depiction and description, respectively, of the control measures in place at the facility.

Scrap and Waste Material Stockpiles and Storage (Covered or Indoor Storage)

The facility minimizes contact of residual liquids and particulate matter from materials stored indoors or under cover with surface runoff. The facility utilizes control measures, such as good housekeeping in the form of use of dry absorbents or wet vacuuming to contain, dispose of, or recycle residual liquids originating from recyclable containers, machined turnings; mercury spill kits for spills from the storage of mercury switches; not allowing wash-water from tipping floors or other processing areas to discharge to the storm sewer system; and disconnecting or sealing off all floor drains connected to the storm sewer system, which have been implemented at the facility, are identified in Appendix 9.

Scrap and Recyclable Waste Processing Areas

The facility minimizes surface runoff contact with scrap processing equipment and from the contact of accumulated particulate matter, such as automobile shredder residue (ASR) and residual fluids, with runoff. Control measures implemented at the facility are identified in Appendix 9.

Scrap Lead-Acid Battery Program

The facility accepts and recycles lead-acid batteries as part of its scrap operations. Lead-acid batteries are stored indoors (Building B), under cover, segregated from other scrap and waste materials, and with a spill-kit nearby. Batteries that are broken, cracked or leaking are not accepted by the facility. The facility also trains employees in lead-acid battery recognition as part of the Material Acceptance Policy training and lead-acid battery storage as part of SWPPP training.

Spill Prevention and Response Procedures

The facility has installed alarms and/or pump shutoff systems on outdoor equipment with hydraulic reservoirs exceeding 150 gallons in the event of a line break. Alternatively, a secondary containment system capable of holding the entire contents of the reservoir plus room for precipitation shall be used. Mercury spill kits are used for any release of mercury from switches, anti-lock brake systems, and switch storage areas. Spill prevention and response measures implemented at the facility are included in Appendix 9. Additionally, the facility has a Spill Response Procedures Plan (Appendix 16) that outlines spill prevention and response procedures for all oil-based liquids stored on-site.

Supplier Notification Program

The facility notifies major suppliers which scrap materials will not be accepted at the facility or will be accepted only under certain conditions and has implemented a Material Acceptance Policy (Appendix 5) that is provided to suppliers and vendors.

A.4.b.ii Waste Recycling Facilities (Liquid Recyclable Materials)

The facility does not accept liquid recyclable materials for processing; therefore, Schedule E.N.1.2 of the 1200-Z is not applicable to facility operations.

A.4.b.iii Additional SWPCP Requirements

Drainage Area Site Map

The Facility Layout map included in Appendix 7 documents all activities and potential pollutant sources that are exposed to stormwater, including, but not limited to, scrap and waste material storage and scrap and waste processing equipment. Note that containment areas for turnings exposed to cutting fluids are not included on the map, as turnings are not accepted for recycling nor generated on-site from operations.

Maintenance Schedules/Procedures for Collection, Handling, and Disposal or Recycling of Residual Fluids at Scrap and Waste Recycling Facilities

Appendix 9 describes maintenance schedules and procedures for collection, handling and disposal or recycling of residual fluids generated from the Maintenance Area. Note that Schedule E.N.2.2 of the 1200-Z only applies to facilities subject to Schedule E.N.1.1.3, "Stockpiling of Turnings Exposed to Cutting Fluids (Outdoor Storage)." The facility does not accept turnings for recycling nor routinely generate or store turnings on-site; therefore, maintenance schedules and/or procedures have not been developed for residual fluids associated with turnings, as doing so is not applicable to facility operations.

A.4.b.iv Sector-specific Benchmarks

**Refer to Section B, Table B-2 of this SWPCP for details about Sector N-specific benchmark monitoring.A.4.c
Water Quality-Based Effluent Limitations**

A.4.c.i Water Quality Standards

The facility must not cause or contribute to a violation of in-stream water quality standards as established in OAR 340-041. If at any time the facility becomes aware, or DEQ or Agent determines, that the discharge causes or contributes to an exceedance of water quality standards, the facility must take the following corrective actions:

- 1) Within 24 hours of discovering the violation:
 - a. Investigate the conditions that triggered the violation and
 - b. Review the SWPCP and the selection, design, installation and implementation of control measures to ensure compliance with the permit.
- 2) Within 30 days of discovering the violation, submit a Water Quality Standards Corrective Action report to DEQ or Agent that documents the following:
 - a. The results of the investigation, including the date the violation was discovered and a brief description of the conditions that triggered the violation;
 - b. Corrective actions taken or to be taken, including date the corrective action was completed or is expected to be completed;
 - c. Document whether SWPCP revisions are necessary. If permit registrant determines that SWPCP revisions are necessary based on the corrective action review, submit a revised SWPCP to DEQ or Agent with the report.
- 3) The facility must implement the corrective actions before the next storm event if practicable or no later than 60 days from discovering the violation, unless a later date is approved by DEQ or Agent.

DEQ may impose additional water quality-based limitations on a site-specific basis, or require the facility to obtain coverage under an individual permit, if information in the application, required reports, or from other sources indicates that the discharge is causing or contributing to a violation of water quality standards, either in the receiving water body or a downstream water body. If DEQ determines that additional site specific requirements are necessary, DEQ will require the facility to revise the SWPCP. DEQ will then hold a 30-calendar day public review period on the revised SWPCP.

A.4.c.ii Discharges to Impaired Waters

SSI is an existing discharger to an Impaired Water with TMDL(s) for pollutants [the Willamette River (Mile 0 to 24.8) – Section ID #OR1227618456580_0_24.8]. DEQ presumes that compliance with the terms and conditions of the permit complies with the TMDL(s), unless the TMDL establishes wasteload allocation(s) and additional requirements for stormwater discharges. The facility must meet Schedule A.4 and B.1.b of the Permit. DEQ will inform the facility if any additional limits or controls are necessary to be consistent with the assumptions of the wasteload allocation(s) in the TMDL(s), or if coverage under an individual permit is necessary. If DEQ determines that additional site specific

requirements are necessary, DEQ will require the facility to revise the SWPCP. DEQ will then hold a 30-calendar day public review period on the revised SWPCP.

A.4.c.iii Numeric Technology-Based Effluent Limits based on Stormwater Specific Effluent Limitations Guidelines

The facility is not subject to numeric effluent limits based on stormwater specific effluent limitations guidelines, as set forth in Schedule A.2 of the Permit.

A.4.d Stormwater Management (Outfalls and Collection)

The potential for stormwater pollution occurs when incident rainwater or stormwater runoff comes into contact with pollutants on exposed surfaces. Pollutants may dissolve, become suspended, or float on the surface of the water, or may attach (e.g., via absorption or adsorption) to soil particulates suspended in the stormwater. Stormwater quality at the SSI facility has the potential to be impacted as a result of exposed or leaking vehicles or equipment, stockpiled scrap metals and bulk materials, staged shredder residues (ASR), and exposed pavement and roadways impacted by vehicle traffic and parking.

The vast majority of the SSI property (approximately 80%) is paved (asphalt or concrete) and is graded to drain stormwater into catch basins. Most of the site's catch basins are designed as grease traps (i.e., with an inverted drain pipe). Stormwater runoffs drains via sheet flow through stormwater manholes to stormwater drains and catch basins, the majority of which are piped to oil/water separators and/or settling cascades, and ultimately to the new treatment facility in the northwest corner of the site, or to established and active outfalls. Currently (as of February 2012), there are eight active SSI outfalls at the site (numbered 1, 2, 13, 14, 15, 16, 19 and 20) and one active outfall on site (#18) that is permitted separately as it drains from an adjacent property (Northwest Pipe and Casting, Inc.), and all of which drain to the Willamette River, either directly or to the berthing slip appendage. As noted in Table A-1, one former outfall (#17) is a remnant of the historical shipyard and is not currently connected to any catch basins and, therefore, does not discharge stormwater. Outfalls 19 and 20 drain stormwater from the non-industrial northeast section of the facility and do not have any end-of-line treatment.

In 2008, as the result of forward thinking and as a condition to the settlement with the Northwest Environmental Defense Center, SSI began plans to implement a state of the art stormwater treatment facility at its Portland Yard. This system was planned in two phases each being implemented separately. In Phase 1, which was completed and fully operational by October 2009, six of the outfalls that drained stormwater from the facility directly to the Willamette River (numbered 5A, 5B, 6A, 6B, 7 and 8) were abandoned and/or grouted shut. (Note that these former outfalls appear on the revised site map in Appendix 7, but are not referenced by number). The drainage basins that these outfalls formerly served have now been grouped into one basin - Basin 2 - and the drainage pipes that used to serve them have been rerouted and connected together. The intercepted stormwater from Basin 2 is now directed to the Water Treatment Facility, where it flows through a debris separator and then through an Amiad brand screen filter that removes any particulates from the stormwater larger than 80 μ (microns). This new Water Treatment Facility has been installed in the northeast section of Basin 2 and includes two 500-gallon surge tanks.

Once through the separator and filter, the stormwater is pumped into a newly constructed 1,000,000-gallon storage tank (the Stormwater Holding Tank). The collected stormwater at this point can be used three separate ways: 1) As process cooling water for the shredder (it would be pumped to the 1,000,000-gallon Process Water Holding Tank first), 2) for water used by water spray trucks for dust suppression, and 3) it can be discharged through Outfall 2 to the Willamette River. The interception of the outfalls was completed in September of 2009. The construction of the stormwater treatment facility and 1,000,000-gallon tank was completed in October 2009. Each of the Phases of this project included money for significant maintenance of the existing hard surfacing. A total of 2.2 acres of 12" thick concrete was laid in Basin 2 as part of Phase 1 in April and May of 2010. Phase 2 will include the intercepting of four outfalls (Outfalls 13, 14, 15 and 16) that currently drain from Basins 13-16, respectively, into the berthing slip north of the facility. This project was scheduled to be complete during the summer of 2010. However, as the result of a DEQ stop-work order, this Phase has not yet been started. Negotiations of the issues that were in dispute regarding the

resolution process have been resolved and SSI hopes to continue with and complete Phase 2 by the summer of 2012, weather permitting.

As described in Section A.3.b.i, stormwater that falls into Drainage Basins R1, R2 and R3 is contained in a series of catch basins that lead to the settling pond and process water storage tank system for recycle/reuse as process cooling water in the shredder system.

There are also six monitoring wells (M1 through M6) and two water wells (WW-1, WW-2) on-site (see Site Map in Appendix 7 for locations). The monitoring wells are approximately 25-30' deep and can be accessed above-ground to monitor groundwater. A closed, locked cap is kept on the top of each monitoring well to prevent dumping of illegal or hazardous substances into them. WW-1 is no longer in use and has had a metal plate covering welded to the top of it to prevent well contamination. WW-2 is inside the Shredder Maintenance Building and is still in use as previously described.

SSI has implemented a variety of stormwater pollution controls, BMPs and structural modifications to minimize the potential for contamination of stormwater runoff from the site. Stormwater pollution controls can generally be categorized as either source controls or structural controls. Source controls are practices that reduce or eliminate the potential for contact of stormwater with pollutant sources, or eliminate non-stormwater discharges (e.g., spills or leaks). Structural controls are in-pipe or end-of-pipe treatment systems and discharge volume reduction devices. Some controls, such as containment structures designed to isolated potential pollutant sources, may be classified in either category.

In general, source controls are given the highest priority for implementation under the SWPCP. SSI believes that control of potential pollution is a more proactive approach to stormwater pollution prevention, minimizing the need for often expensive end-of-pipe treatment technologies. However, due to the nature of scrap recycling operations and existing conditions, structural controls have also played an important role in stormwater pollution prevention at this facility, and will continue to be evaluated for implementation.

Appendix 9 (Stormwater Pollution Controls and BMPs) provides a summary of the existing and proposed stormwater pollution control measures relevant to the SSI facility. As indicated in Appendix 9, existing control measures are continuously undergoing evaluation for applicability and effectiveness, and some have been designated for improvement. The following subsections describe the control measures in greater detail.

A.5 Stormwater Pollution Prevention Team

Stormwater pollution prevention depends on the awareness and cooperation of all SSI employees. However, the Stormwater Pollution Prevention Team is primarily responsible for developing, implementing, maintaining and revising this SWPCP; ensuring facility employees receive appropriate training in BMPs related to stormwater; conducting periodic site inspections to identify areas needing improvement; and ensuring that any identified deficiencies are corrected in a timely manner.

Team members and their specific duties and responsibilities related to stormwater management are detailed below. All members of the team are familiar with the management and operations of the SSI facility.

Corey Bailey: Responsible for supervision and direction of all stormwater pollution prevention activities at the facility, including compliance with the General Permit and the SWPCP. Collects stormwater samples and prepares and submits annual stormwater quality reports to the DEQ (July 31st each year), and other stormwater-related reports.

Bob Gaudinier: Responsible for overseeing day-to-day SWPCP implementation and approving budgets for stormwater BMPs and plan improvements; Performs necessary recordkeeping and reporting activities; Assists with employee training related to stormwater pollution prevention and conducts periodic site inspections and SWPCP effectiveness evaluations.

Chris Alexander: Responsible for overseeing day-to-day SWPCP implementation; Performs necessary recordkeeping and reporting activities; Assists with employee training related to stormwater pollution prevention and conducts periodic site inspections and SWPCP effectiveness evaluations.

A.5.a Stormwater Pollution Prevention Team Meetings

The Stormwater Pollution Prevention Team shall meet once per month (on a date of their choosing) to discuss BMPs, monitoring results, plan revisions, Action Plan implementations or any other agendum that pertains to the SWPCP or stormwater retention or diversion in general.

B. MONITORING AND INSPECTION REQUIREMENTS

As specified on the Site map and in Table A-1, monitoring for the purposes of this SWPCP will include Outfalls 1, 2, 13, and 14. Outfall 18 will not be included for monitoring under this plan since it is sampled monthly by a neighboring facility as part of a separate NPDES Individual Permit. Outfalls 15 and 16 are substantially identical to Outfalls 13 and 14 and will not be included for monitoring; Outfalls 19 and 20 are not included for monitoring as they are not associated with areas of industrial activity (See Section B.6.c).

Monitoring must be conducted according to test procedures approved under 40 CFR §136, unless other test procedures have been specified in this permit.

B.1 Benchmarks

Permit registrants must monitor for the benchmark pollutants identified in Schedule A.9 (See Table B-1 below) of the Permit, and for benchmarks specified in Schedule E of the permit according to the applicable sector for the facility's primary and co-located industrial activities (See Table B-2). Benchmarks are guideline concentrations, not limitations; a benchmark or reference concentration exceedance, therefore, is not a permit violation. They are designed to assist the facility in determining whether their SWPCP is effectively reducing pollutant concentrations in stormwater discharged from the site. The following statewide benchmarks apply to each point source discharge (outfall) of stormwater associated with industrial activity.

Table B-1: 1200-Z Parameter Benchmarks

Parameter	Benchmark
Total Copper	0.020 mg/l
Total Lead	0.040 mg/l
Total Zinc	0.12 mg/l
pH*	5.5 – 9.0 S.U.
Total Suspended Solids (TSS)*	100 mg/l
Total Oil & Grease (O&G)*	10 mg/l
E. Coli**	406 counts/100 ml

*See Schedule A.2 of the Permit for list of facilities subject to federal limitations.

** The benchmark for E. Coli applies only to active landfills and sewage treatment plants.
pH will be analyzed in the field to meet holding time requirements (S.U. = Standard Units)

For facilities whose SIC Code (5093) identifies them under Sector N – Scrap Recycling and Waste Recycling Facilities (SSI is identified under Sector N), the additional sector-specific benchmarks also apply:

Table B-2: Sector N-Specific Benchmarks

Parameter	Benchmark
Chemical Oxygen Demand (COD)	120 mg/L
Total Aluminum	0.75 mg/L
Total Iron	1.0 mg/L

The results of stormwater sample analyses will be tabulated and submitted to the City of Portland BES by July 15th for the preceding reporting period (July 1st through June 30th).

Sample analytical results and periodic visual inspection observations will be evaluated by SSI's Stormwater Pollution Prevention Team (See Section A.5) during periodic SWPCP effectiveness assessments to determine if modified or additional stormwater management practices and/or structural controls are warranted. The SWPCP will be revised as appropriate, and employees will be properly trained as necessary.

B.2 Corrective Actions for Impairment Pollutants and Benchmarks Exceedances

B.2.a Tier I Corrective Action Response to Exceedances of Impairment Pollutants and Benchmarks

- a) If stormwater sampling results exceed any of the statewide benchmarks in Schedule A.9 of the permit, sector specific benchmarks in Schedule E of the permit, or reference concentrations for impairment pollutants identified in the permit assignment letter, the permit registrant must within 30 calendar days of obtaining the monitoring results:
 - 1) Investigate the cause of the elevated pollutant levels.
 - 2) Review the SWPCP and the selection, design, installation and implementation of control measures to ensure compliance with the permit. If permit registrant determines that SWPCP revisions are necessary based on corrective action review, submit the revised pages of the SWPCP to DEQ or Agent, including a schedule for implementing the control measures.
 - 3) Summarize the following information in a Tier I report that is retained on site and submitted to DEQ or Agent upon request:
 - i. The results of the investigation.
 - ii. Corrective actions taken or to be taken, including date corrective action completed or expected to be completed. Where the permit registrant determines that corrective action is not necessary, provide the basis for this determination.
 - iii. Document whether SWPCP revisions are necessary.
- b) Implement the corrective actions before the next storm event if possible or as soon as practicable.
- c) Permit registrants are exempt from the Tier I corrective action requirements for exceedances of benchmark parameters addressed by the Tier II corrective actions requirements in Schedule A.11 and A.12 below

B.2.b Tier II Corrective Actions for Facilities that exceeded Benchmarks based on 4th year Benchmark Compliance Evaluation required by 1200-Z permit that expires June 2012 (see Condition 4 of Permit Coverage and Exclusion section)

- a) Permit registrants are exempt from the Tier II corrective action requirements in condition A.12 of the permit.
- b) No later than two years after obtaining permit coverage, the permit registrant must install and implement the stormwater treatment measures.
- c) After the stormwater treatment measures are implemented, if sampling results continue to exceed the same benchmark parameter(s) that triggered the Tier II corrective action requirements, permit registrant must within 30 days of obtaining the sample results, evaluate whether the treatment measures were properly installed, maintained and implemented and whether modifications to these measures are necessary. Summarize these findings in a Tier II Benchmark Exceedance report that is retained on site and submitted to DEQ or Agent annually with the Discharge Monitoring Report form.

B.2.c Tier II Corrective Action Response based on 2nd year Geometric Mean Benchmark Evaluation

- a) Permit registrants must evaluate the sampling results collected during the 2nd year of permit coverage and determine if the geometric mean of the samples collected at each monitored outfall exceeds any statewide benchmark in Schedule A.9 of the permit. The permit registrant must report this information with Discharge Monitoring Report (DMR) form for that monitoring year.
 - 1) For the pH benchmark Tier II corrective actions are triggered if more than three samples collected during the first two years of permit coverage are outside of the pH benchmark range.
 - 2) Permit registrants are not required to conduct this evaluation for the benchmark parameter(s) where DEQ has granted a monitoring waiver in Schedule B.4 of the permit.
- b) If the geometric mean of the sampling results for any outfall monitored exceeds any statewide benchmark (or if more than three samples for any outfall are outside of the pH benchmark range), permit registrant must:
 - 1) Revised SWPCP
 - i. Revise the SWPCP to include additional stormwater treatment measures, which may include a combination of source control and treatment measures, with the goal of achieving the benchmark(s) in Schedule A.9 of the permit in future discharges. Include in the SWPCP the rationale for the selection of the measures, the projected reduction of pollutant concentration(s) and the schedule for implementing these measures.
 - ii. Have a licensed professional engineer (PE) or certified engineering geologist (CEG) design and stamp the portion of the SWPCP that addresses the stormwater treatment measures.
 - iii. Submit the revised SWCP to DEQ or Agent by December 31st of the 3rd year of permit coverage. If the permit registrant does not receive a response from DEQ or Agent within 30 days of receipt, the proposed revisions are deemed accepted.
 - 2) Tier II Deadline - Implement the treatment measures by June 30th of the 4th year of permit coverage.
 - 3) After the stormwater treatment measures are implemented, if sampling results continue to exceed the same benchmark parameter(s) that triggered the Tier II corrective action requirements, permit registrant must within 30 days of obtaining the sample results, evaluate whether the treatment measures were properly installed, maintained and implemented and whether modifications to these measures are necessary. Summarize these findings in a Tier II Benchmark Exceedance report that is retained on site and submitted to DEQ or Agent annually with the Discharge Monitoring Report form.
- c) Tier II Waiver - Permit registrants may request a waiver from the requirements in Schedule A.12.b above if:
 - 1) The benchmark exceedance(s) is attributed solely to the presence of the pollutant(s) in natural background and is not associated with industrial activities at the site (see Schedule D.3, Definitions). The Tier II waiver report must include the investigation and analysis used to demonstrate that the exceedances are due to natural background conditions and include any data collected by the permit registrant or others (including literature studies) that describe the levels of natural background pollutants in the discharge.
 - 2) Permit registrant implements or has implemented volume reduction measures, such as low impact development practices, that have or will result in reductions of the mass load of pollutants in the discharge below the mass equivalent of the benchmarks in Schedule A.9 of the permit. The Tier II

Waiver report must include data and analysis to support this determination, including the description of the measure(s), date(s) implemented or expected to be implemented and the mass load analysis.

- 3) Permit registrant must submit a Tier II Waiver report to DEQ or Agent by December 31st of the 3rd year of permit coverage. DEQ or Agent will grant or deny the waiver request within 60 days of its receipt.

B.3 Impairment Pollutants

Permit registrants that discharge to an impaired water without a TMDL for pollutant(s) must monitor for impairment pollutants for which a standard analytical method exists (see 40 CFR Part 136). Permit registrants that discharge to an impaired water with a TMDL are not required to monitor for impairment pollutant(s) addressed by the TMDL, unless the TMDL established wasteload allocations and additional requirements for industrial stormwater discharges.

The facility discharges to the Willamette River (Section ID #OR1227618456580_0_24.8) either directly (Outfall 2) or indirectly from the berthing slip north of the facility (Outfalls 13, 14, 15, 16, 19, 20). This section of the Willamette River is considered impaired with TMDLs for biochemical oxygen demand (BOD), DDT, dieldrin, bacteria (E. coli), mercury, temperature and turbidity (See 2006 EPA Water Body Report for this water body in Appendix 8).

Before granting coverage under the permit, DEQ will identify in the permit assignment letter the impairment pollutants that the facility is required to monitor and reference concentrations for these pollutants. The reference concentrations will be based on the acute aquatic life criteria, if criteria are approved for the pollutant. If there is not an acute aquatic life criteria for the pollutant, DEQ will use the chronic criteria. If there is not a chronic criteria for the pollutants, DEQ will use the human health criteria.

- 1) If the pollutant for which the water body is impaired is suspended solids, turbidity or sediment/sedimentation, permit registrants must monitor for total suspended solids (TSS).
- 2) If the pollutant for which the water body is impaired is expressed in the form of an indicator or surrogate pollutant, permit registrants must monitor for that indicator or surrogate pollutant.
- 3) No monitoring is required when a water body's impairment is due to one of the following:
 - a) Biological communities are impaired, but no pollutant, including indicator or surrogate pollutants, is specified as causing the impairment;
 - b) When a water body's impairment is related to hydrologic modifications, impaired hydrology or temperature.

B.4 Numeric Effluent Limits Pursuant to Federal Effluent Limitation Guidelines

Permit registrants subject to effluent limit guidelines must monitor for the parameters in Schedule A.2 of the Permit at each outfall containing the discharges from activities identified in the guidelines.

The facility is not subject to effluent limit guidelines. Therefore, this section does not apply.

B.5 Additional Pollutants

There are no benchmarks, reference concentrations or numeric effluent limit for these pollutants. The purpose of this monitoring is to determine to what extent the pollutants are present in industrial stormwater discharges.

- 1) Permit registrants must monitor for cadmium, nickel and chromium (applicable to SSI).
- 2) Permit registrants with the Industrial Sector M as a primary or co-located industrial activity must sample for mercury (not applicable to SSI).
- 3) Permit registrants with the Sector N (Scrap Recycling Facilities, SIC Code 5093) as a primary or co-located industrial activity must sample for mercury and PCBs (applicable to SSI).

B.6 Sampling Procedures

B.6.a Grab Sampling

For each outfall monitored, a single grab sample or a series of composite samples of stormwater discharge is to be collected. All samples must be collected from the same storm event. Time or flow-weighted compositing of samples may be used as an alternative to grab samples, except when monitoring for pH, oil and grease and E. coli. A single grab sample may be used to satisfy multiple pollutant parameter monitoring requirements (e.g., if required to monitor for zinc as both benchmark and impairment pollutant).

B.6.b Representative Sample

All samples must be representative of the discharge. Unless approved in writing by DEQ or Agent, all samples taken at monitoring points specified in this SWPCP must be taken before being diluted by stormwater from a different drainage area of the facility or areas outside the facility; wastewater or any other waste stream, body of water or substance.

On-site stormwater flows that are combined to utilize a common treatment facility (e.g., the new treatment facility at SSI) may be monitored from the discharge of the treatment facility.

Due to the nature of the new stormwater treatment and storage system that has recently been constructed, Outfall #2 will be sampled in accordance with the paragraph above. Discharges, however, will be either in batches or overflow events (See Note 5 in Table A-1). Therefore, it is possible that sampling events could occur on different dates than the sampling events for the other three outfalls (Outfalls 1, 13, and 14).

B.6.c Multiple Point Source Discharges

Each stormwater outfall must be monitored unless:

- 1) The outfall serves an area with no exposure of stormwater to industrial activities (Outfalls 19 and 20 at the facility fall under this category);
- 2) The outfall has effluent that is substantially similar to the effluent of a monitored outfall and the same BMPs are implemented and maintained at the similar outfalls or drainage areas that lead to the outfalls. The determination of substantial similarity of effluent(s) must be based on past monitoring or an analysis of industrial activities and site characteristics.

Outfalls 13 and 15 at the facility have been designated as identical outfalls with Outfall 13 being the sampling point; Outfalls 14 and 16 have been designated identical outfalls with Outfall 14 being the sampling point (See Table A-1 for supporting data).

B.6.d Timing of Monitoring

Outfall discharges must be monitored during the first 12 hours of a measurable storm event that actually produces discharge from the facility. If it is not practicable to collect the sample within this period, collect the sample as soon as practicable and provide documentation with the Discharge Monitoring Report (Appendix 13) why it was not practicable to take samples within the period. Sampling is not required outside of regular business hours or during unsafe conditions (e.g., lightning storms). Regular business hours are from 8AM to 5PM on weekdays, unless otherwise specified in the SWPCP.

B.6.e Monitoring Frequency

The monitoring year is specified in the Permit as from July 1st to June 30th. Stormwater samples must be collected at least 14 days apart and according to the frequency described in Table B-3 below, unless a monitoring variance or waiver is granted by DEQ or Agent.

Table B-3: Monitoring Frequency

Pollutant Category	Minimum Frequency
Benchmarks in Schedule A.9, and any applicable sector-specific benchmarks (Tables B-1 and B-2)	Four times (4X) per Year Two samples on or before Dec. 31 st and two samples on or after Jan. 1 st
Impairment Pollutants	Two times (2X) per Year One sample on or before Dec. 31 st and one sample on or after Jan. 1 st
Pollutant Category	Minimum Frequency
Additional Pollutants:	
Mercury and PCBs for facilities with SIC Code 5093	Four times over the first three (3) years of permit coverage. Two samples on or before Dec. 31 st and two samples on or after Jan. 1 st
Cadmium, Chromium and Nickel	Four times over the first three (3) years of permit coverage. Two samples on or before Dec. 31 st and two samples on or after Jan. 1 st

Permit registrant may collect more samples than the minimum frequency described in the table above, but must report this additional data on the Discharge Monitoring Report form. These additional samples must be included to establish a monitoring waiver in Schedule B.4 or to conduct the geometric mean evaluation in Schedule A.12 of the permit.

Follow-up monitoring due to an exceedance of a numeric effluent limit in Schedule A.2 of the Permit is not applicable to this facility.

B.6.f Monitoring Variance

Permit registrants may request a sampling variance for missed samples due to no discharge from the site if one of the following criteria is met:

- a) State or federal authorities declared the year a drought year.
- b) Demonstrate that rainfall in the area where the permit registrant's facility is located was 20% or more below the three-year average rainfall for that area.
- c) Demonstrate to DEQ's or Agent's satisfaction that discharge did not occur due to use of on-site retention system(s) or other stormwater treatment system(s), or infrequent storm events of sufficient magnitude to produce runoff during normal business hours and safe conditions.

For each missed sample, report in the Discharge Monitoring Report form that no discharge occurred and include supporting data and analysis demonstrating why the monitoring did not occur.

Permit registrants that obtain permit coverage after April 1st are granted a monitoring variance for any applicable impairment pollutants, additional pollutants or sector-specific benchmarks for the remainder of the first monitoring year, which ends on June 30th.

B.6.g Monitoring Waiver

Benchmark and Impairment Pollutant Monitoring

A monitoring waiver may be requested in the following circumstances:

- 1) If the geometric mean of four consecutive sampling results is below the statewide benchmarks in Schedule A.9 of the Permit (See Table B-1), sector-specific benchmarks in Schedule E of the Permit (See Table B-2), or reference concentrations for impairment pollutants identified in the permit assignment letter, the facility is not required to monitor for those pollutants for the remainder of the permit term. The facility must submit to DEQ or Agent the analytical laboratory results from the four sampling events.
 - a. Results from sampling events cannot be averaged.
 - b. Monitoring waivers may be allowed for individual parameters.
- 2) If the exceedance is attributed solely to the presence of the pollutant in natural background and is not associated with industrial activities at the site, DEQ or Agent will consider these samples as being below the benchmark or reference concentration for the impairment pollutant. The facility must submit a Natural Background Waiver report to DEQ that describes the investigation and analysis to demonstrate that the exceedances are due to natural background conditions and includes any data collected by the facility or others (including literature studies) that describe the levels of natural background pollutants in the discharge.
- 3) If the facility is unstaffed and no industrial materials or activities are exposed to stormwater. Note: There are no plans for the facility to be unstaffed during the term of the permit.

A request must be submitted by the facility to DEQ or Agent to exercise the monitoring waiver based on the conditions above and must include supporting documentation. If DEQ or Agent does not comment within 30 calendar days, the monitoring waiver is deemed approved.

- 1) There is no reduction in monitoring allowed for:
 - a. Visual observations, unless the site is inactive or unstaffed and there are no industrial materials or activities exposed to stormwater and permit registrant meets requirements in Schedule B.4.a.i.3 of the permit (not applicable to the facility).
 - b. Monitoring for federal effluent limit guidelines (not applicable to the facility).

Revocation of Monitoring Waiver

A permit registrant that has been granted a monitoring waiver must reinstate the monitoring of stormwater discharge if:

- 1) Prior monitoring efforts used to establish the monitoring waiver were improper or sampling results were incorrect;
- 2) Changes to site conditions are likely to affect stormwater discharge characteristics;
- 3) Additional monitoring occurs and the sampling results exceed benchmark(s), or
- 4) Formerly inactive or unstaffed sites become active and/or staffed or industrial materials or activities become exposed to stormwater.

DEQ or Agent will notify the permit registrant in writing if the monitoring waiver has been revoked.

B.6.h Additional Monitoring

DEQ may notify permit registrants in writing of additional discharge monitoring requirements. Any such notice will state the reasons for the monitoring, locations and pollutants to be monitored, frequency and period of monitoring, sample types and reporting requirements.

B.7 Visual Inspections

The facility must meet the following visual inspection requirements which are to be conducted on a monthly basis when the facility is in operation of areas where industrial materials or activities are exposed to stormwater and areas where stormwater control measures, structures, catch basins, and treatment facilities are located: Visual inspections are to be made using the Monthly Site Inspection Report form in Appendix 10.

- 1) Visually inspect the facility for the following:
 - Industrial materials, residue, or trash that may have or could come into contact with stormwater;
 - Leaks or spills from industrial equipment, drums, tanks and other containers;
 - Off-site tracking of industrial or waste materials, or sediment where vehicles enter or exit the site, excluding employee-only entrances and exits;
 - Tracking, or blowing of raw, final or waste materials;
 - Evidence of, or the potential for, pollutants entering the drainage system;
 - Evidence of pollutants discharging to receiving waters at all outfalls, unless outfalls are representative as described in Schedule B.2.c.ii of the Permit, and the condition of and around the outfall;
 - Presence of floating solids (associated with industrial activity), foam, visible oil sheen or discoloration of the stormwater discharge at all outfalls, unless outfalls are representative as described in Schedule B.2.c.ii of the Permit,. Conduct visual observations when stormwater discharge is occurring during regular business hours and safe conditions; and
 - Properly functioning stormwater control measures.
- 2) Document the following in an inspection report (Monthly Site Inspection Report forms and completed forms shall be kept in Appendix 10 of this SWPCP) that is retained on-site and submitted to DEQ or Agent upon request:
 - The inspection date and time;
 - Control measures needing cleaning, replacement, maintenance, reconditioning or repair;
 - The condition of the drainage/conveyance system and need for maintenance;
 - Previously unidentified sources of pollutants; and
 - Stormwater discharge observations and whether discharge contained floating solids (associated with industrial activity, e.g., ASR), foam, visible oil sheen or discoloration. If these pollutants are present in the discharge, describe corrective action(s) taken or that will be taken to remedy the problem.
- 3) Visual inspection exceptions are made for inactive or unstaffed sites as long as there are no industrial materials or activities exposed to stormwater. For exceptionally large facilities where monthly inspections of all areas identified above are infeasible, DEQ or Agent may approve in writing a modified inspection frequency.

B.8 Reporting and Recordkeeping Requirements

B.8.a Reporting Monitoring Data

The permit registrant must submit a DEQ-approved Discharge Monitoring Report (DMR) form to DEQ or Agent by July 31st of each year to report all analytical monitoring (i.e., benchmark parameters, impaired pollutants, additional pollutants) and visual inspection monitoring results. Identify in the DMR the sampling results for the previous monitoring year (July 1st to June 30th) and include the laboratory results from the testing laboratory.

The permit registrant must report the minimum detection levels and analytical methods for the parameters analyzed. Non-detections must be reported as "ND" with the detection limit in mg/L in parentheses, e.g., ND (0.005 mg/L). In calculating the geometric mean, one-half of the detection limits must be used for non-detections.

B.8.b Exceedance Report for Numeric Effluent Limits

The facility is not required to monitor for Numeric Effluent Limits as described in Schedule A.2 of the Permit, so this report does not apply.

B.8.c Recordkeeping Procedures

The facility must record and maintain on-site the following information. All records must be retained by the permit registrant for at least three (3) years and made available to DEQ, Agent or local municipality upon request.

- 1) A copy of the SWPCP and any revisions, corrective actions reports and monthly inspection reports;
- 2) Inspection, maintenance, repair and education activities; and
- 3) Spills or leaks of significant materials that impacted or had the potential to impact stormwater or surface waters. Include the corrective actions to clean up the spill or leak as well as measures to prevent future problems of the same nature. Reporting of spills and leaks and the corrective actions used shall be reported using the Incident Report Form in Appendix 14.

C. ADDITIONAL PERMIT REQUIREMENTS

C.1 Non-Stormwater Discharges

Subject to terms and conditions of the Permit, the following non-stormwater discharges are authorized:

- Discharges from fire-fighting activities;
- Fire hydrant flushings;
- Potable water, including water line flushings;
- Uncontaminated condensate from air conditioners, coolers and other compressors, and from outside storage of refrigerated gases and liquids;
- Irrigation drainage;
- Landscape watering, provided that all pesticides, herbicides, and fertilizer have been applied in accordance with manufacturer's instructions;
- Pavement wash waters where no detergents or hot water are used, no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed), and surfaces are swept before washing;
- Vehicle washing that does not use detergents or hot water unless the 1700-A NPDES permit is required for discharge;
- Routine external building wash-down that does not use detergents or hot water.
- Uncontaminated ground water or spring water.
- Foundation or footing drains where flows are not contaminated with process materials.
- Incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of the facility, but not intentional discharges from the cooling tower (e.g., "piped" cooling tower blowdown or drains).

Piping and drainage systems for interior floor drains and process wastewater discharge points must be separated from the storm drainage system to prevent inadvertent discharge of pollutants to waters of the state, unless the process wastewater discharge is authorized by another NPDES permit that allows commingled outfalls. Discharge from floor drains to the stormwater drainage system is a violation of this permit.

Any other wastewater discharge or disposal, including stormwater mixed with wastewater, must be permitted in a separate permit, unless the wastewater is reused or recycled without discharge or disposal, or discharged to the sanitary sewer with approval from the local sanitary authority.

C.2 SWPCP Revisions

The facility must prepare SWPCP revisions in compliance with condition A.6 of the Permit and clearly identify changes to activities on-site and control measures. Submission of all SWPCP revisions is not required. SWPCP revisions must be submitted only if they are made for the following reasons:

- 1) Change in site contact(s);
- 2) In response to a corrective action or inspection;
- 3) Changes to the site or control measures that may significantly change the nature of pollutants present in stormwater discharge; or significantly increase the pollutant(s) levels, discharge frequency, discharge volume or flow rate; and
- 4) Changes to monitoring locations or outfalls.

If submission of SWPCP revisions is required, facility must submit the revised pages of the SWPCP or site map to DEQ or Agent within 30 days of making the revisions. Review of the revisions by DEQ or Agent is not required prior

to implementation of changes, except for monitoring location changes. If the facility does not receive a response to the revisions from DEQ or Agent within 30 days, the revisions will have been deemed acceptable.

DEQ or Agent may require the facility to revise the SWPCP at any time. In such a case, the revisions must be submitted within 30 days unless a later date is approved by DEQ or Agent.

SWPCP revisions are not subject to public notice and comment unless they are made in response to the water quality based effluent limit requirements in Schedules A.4 and A.5 of the Permit.

C.3 Permit Compliance

Any noncompliance with any requirements of the 1200-Z Permit constitutes a violation of the Clean Water Act. Failure to take any required corrective actions in Schedules A.10 through A.12 of the Permit constitute an independent, additional violation of the Permit and the Clean Water Act. Any actions and time periods specified for remedying noncompliance do not absolve parties of the initial underlying violations.

Where corrective action is triggered by an event that does not itself constitute a violation (e.g., a benchmark exceedance), there is no Permit violation for the corrective actions provided the facility takes the corrective action within the deadlines identified in the Permit.

The facility must implement stormwater control measures to meet new technology and water quality based requirements in Schedules A.1 through A.5, including any sector specific requirements in Schedule E, of the Permit (See Section A.4 of this SWPCP) within 90 days of receiving permit coverage. Control measures that require capital improvements must be completed in accordance with the schedule set forth in the SWPCP, but must be completed within two (2) years of receiving permit coverage.

C.4 Special Conditions

C.4.a Releases in Excess of Reportable Quantities

The 1200-Z Permit does not relieve the permit registrant of the reporting requirements of 40 CFR §117 Determination of Reportable Quantities for Hazardous Substances and 40 CFR §302 Designation, Reportable Quantities, and Notification.

C.4.b Availability of SWPCP and Monitoring Data

This SWPCP and all stormwater monitoring data must be made available to government agencies responsible for stormwater management in the permit registrant's area.

C.4.c Local Public Agencies Acting as DEQ's Agent

DEQ has authorized certain local governments and special districts to act as its Agent (referred to throughout this SWPCP) in implementing portions of the Permit. The Agent may be authorized to conduct the following activities, including but not limited to:

- Application and SWPCP review;
- Inspections;
- Monitoring data review;
- Stormwater and wastewater monitoring; and
- Verification and approval of no-exposure certifications

The City of Portland Bureau of Environmental Services (BES) acts as DEQ's Agent in the facility's area.

C.5 NPDES General Conditions

Schedule F of the Permit (a copy of the 1200-Z permit is included in Appendix 1 of this SWPCP) lists NPDES General Conditions that also must be followed by permit registrants. Rather than repeating all of the general conditions in this SWPCP, the following index has been provided for the facility to refer to:

- SECTION A. STANDARD CONDITIONS
 1. Duty to Comply
 2. Penalties for Water Pollution and Permit Condition Violation
 3. Duty to Mitigate
 4. Duty to Reapply
 5. Permit Actions
 6. Toxic Pollutants
 7. Property Rights
 8. Permit References
 9. Permit Fees
- SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS
 1. Proper Operation and Maintenance
 2. Duty to Halt or Reduce Activity
 3. Bypass of Treatment Facilities
 4. Upset
 5. Treatment of Single Operational Event
 6. Overflows from Wastewater Conveyance Systems and Associated Pump Stations
 7. Public Notification of Effluent Violation or Overflow
 8. Removed Substances
- SECTION C. MONITORING AND RECORDS
 1. Representative Sampling
 2. Flow Measurements
 3. Monitoring Procedures
 4. Penalties of Tampering
 5. Reporting of Monitoring Results
 6. Additional Monitoring by the Permit Registrant
 7. Averaging of Measurements
 8. Retention of Records
 9. Records Contents
 10. Inspection and Entry
- SECTION D. REPORTING REQUIREMENTS
 1. Planned Changes
 2. Anticipated Noncompliance
 3. Transfers
 4. Compliance Schedule
 5. Twenty-four Hour Reporting
 6. Other Noncompliance
 7. Duty to Provide Information
 8. Signatory Requirements
 9. Falsification of Reports
- SECTION E. DEFINITIONS

D. PLAN APPROVAL AND CERTIFICATION

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name (Print)	Title	Date	Signature
Chris Alexander	General Manager		
Corey Bailey	Regional Environmental Manager		

Appendix 1

Oregon NPDES Stormwater Discharge General Permit 1200-Z

GENERAL PERMIT
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
STORMWATER DISCHARGE PERMIT
Department of Environmental Quality
811 S.W. Sixth Avenue, Portland, OR 97204
Telephone: (503) 229-5630 or 1-800-452-4011 toll free in Oregon
Issued pursuant to ORS 468B.050 and The Federal Clean Water Act

ISSUED TO:

SOURCES THAT ARE REQUIRED TO OBTAIN COVERAGE UNDER THIS PERMIT

A facility that may discharge stormwater from a point source to surface waters or to conveyance systems that discharge to surface waters of the state and

- 1) The stormwater is associated with an industrial activity identified in *Table 1: Sources Covered* on p. 3; or
- 2) The facility is notified in writing by the Director that coverage under this permit is required for its stormwater discharges (see Note 1 below).

Note 1:

- 1) Facility is designated by the Director as needing a stormwater permit pursuant to 40 CFR §122.26(a)(9)(i)(D). Facility discharges stormwater associated with an industrial activity that is not described in *Table 1: Sources Covered* on p. 3 below.
- 2) Facilities may apply for conditional exclusion from the requirement to obtain coverage under this permit if there is no exposure of industrial activities and materials to stormwater pursuant to 40 CFR §122.26(g); see Permit Coverage and Exclusion from Coverage on p. 5 below.
- 3) The following activities are not required to obtain coverage under this permit:
 - (i) Construction activities; asphalt mix batch plants; concrete batch plants; and Standard Industrial Classification code 14, Mining and Quarrying of Nonmetallic Minerals, Except Fuels, and industrial stormwater discharges to the Columbia Slough Watershed or to conveyances leading to the Columbia Slough. These activities are required to obtain coverage under separate general permits; and
 - (ii) Any source that has obtained an individual NPDES permit for the discharge, unless the source is otherwise eligible for coverage under this permit and DEQ has approved the source's application for coverage under it.
 - (iii) Any source that discharges to a sanitary sewer system and the discharge is approved by the sanitary sewer operator.

Neil Mullane, Administrator
Water Quality Division

Issuance Date: Oct. 1, 2011
Effective Date: July 1, 2012

PERMITTED ACTIVITIES

Until this permit expires, is modified or revoked, the permit registrant is authorized to construct, install, modify, or operate stormwater treatment or control facilities, and to discharge stormwater and non-stormwater discharges specifically authorized by the permit to public waters in conformance with all the requirements, limitations, and conditions set forth in the following schedules:

	<u>Page</u>
Permit Coverage and Exclusion From Coverage	5
Schedule A - Technology Based Limitations, Water Quality Based Limitations, Stormwater Pollution Control Plan, Benchmarks and Corrective Actions	10
Schedule B - Monitoring and Reporting Requirements	19
Schedule C - Compliance Schedules.....	N/A
Schedule D- Special Conditions.....	25
Schedule E - Sector Specific Requirements.....	28
Schedule F - General Conditions	87

Unless specifically authorized by this permit, by regulation issued by EPA, by another NPDES permit, or by Oregon Administrative Rule, any other direct or indirect discharge to waters of the state is prohibited, including discharges to an underground injection control system.

Schedule F contains General Conditions that are included in all general permits issued by DEQ. Should conflicts arise between Schedule F and any other schedule of the permit, the requirements in Schedule F will not apply.

Table 1. Sources Covered

Types of Industrial Sources Required to Obtain Coverage Under this Permit
<p>Facilities with the following primary Standard Industrial Classification (SIC) codes:</p> <ul style="list-style-type: none"> 10 Metal Mining 12 Coal Mining 13 Oil and Gas Extraction 20 Food and Kindred Products 21 Tobacco Products 22 Textile Mill Products 23 Apparel and Other Finished Products Made From Fabrics and Similar Material 24 Lumber and Wood Products, Except Furniture and 2491 Wood Preserving. (Activities with SIC 2411 Logging that are defined in 40 CFR §122.27 as silvicultural point source discharges are covered by this permit.) 25 Furniture and Fixtures 26 Paper and Allied Products 27 Printing, Publishing and Allied Industries 28 Chemicals and Allied Products (excluding 2874 Phosphate Fertilizer Manufacturing) 29 Petroleum Refining and Related Industries 30 Rubber and Miscellaneous Plastics Products 31 Leather and Leather Products 32 Stone, Clay, Glass, and Concrete Products 33 Primary Metal Industries 34 Fabricated Metal Products, Except Machinery and Transportation Equipment 35 Industrial and Commercial Machinery and Computer Equipment 36 Electronic and Other Electrical Equipment and Components, Except Computer Equipment 37 Transportation Equipment 38 Measuring, Analyzing, and Controlling Instruments; Photographic, Medical and Optical Goods; Watches and Clocks 39 Miscellaneous Manufacturing Industries 4221 Farm Product Warehousing and Storage 4222 Refrigerated Warehousing and Storage 4225 General Warehousing and Storage 5015 Motor Vehicle Parts, Used 5093 Scrap and Waste Materials
<p>Facilities with the following primary SIC codes that have vehicle maintenance shops (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, or airport deicing operations:</p> <ul style="list-style-type: none"> 40 Railroad Transportation 41 Local and Suburban Transit and Interurban Highway Passenger Transportation 42 Motor Freight Transportation and Warehousing (excluding 4221 Farm Product Warehousing and Storage, 4222 Refrigerated Warehousing and Storage, and 4225 General Warehousing and Storage) 43 United States Postal Service 44 Water Transportation 45 Transportation by Air 5171 Petroleum Bulk Stations and Terminals, except as provided in Note 1 below.
<p>Facilities storing, transferring, formulating, or packaging bulk petroleum products or vegetable oils, except as provided in the note below.</p>
<p>Steam Electric Power Generation including coal handling sites</p>
<p>Landfills, land application sites and open dumps</p>
<p>Hazardous Waste Treatment, Storage and Disposal Facilities.</p>
<p>Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage, recycling, and reclamation of municipal or domestic sewage (including land dedicated to the disposal of sewage sludge that are located within the confines of the facility) with the design flow capacity of 1.0 mgd or more, or required to have a pretreatment program under 40 CFR §403.</p>

Note 1: Exemption for facilities storing, transferring, formulating, or packaging bulk petroleum products or vegetable oils:

A discharge permit is not needed if discharges are only from:

- 1) Stormwater that contacts oil-filled electrical equipment in transformer substations that are equipped with properly functioning oil spill prevention measures such as containment areas or oil/water separators.
- 2) Stormwater that contacts petroleum product receiving or dispensing areas or product dispensing equipment from which product is dispensed to final users, whether or not the stormwater is treated by an oil/water separator.
- 3) Stormwater that collects in a secondary containment area at a petroleum product dispensing site, where the secondary containment area is associated with storage tanks from which product is dispensed only to final users, and the discharge from the containment area is treated by an oil/water separator.
- 4) Stormwater that collects in a secondary containment area at a bulk petroleum product storage site, where the total storage capacity at the site does not exceed 150,000 gallons, and the discharge from the containment area is treated by an oil/water separator. A site with multiple containment areas is considered a single site for determining total storage capacity.

PERMIT COVERAGE AND EXCLUSION FROM COVERAGE

1. New Discharger to Impaired Waters (see Schedule D.3, Definitions)

- a. A new discharger to an impaired water without a Total Maximum Daily Load (TMDL) for pollutant(s) must meet the following conditions to obtain coverage under this permit, or cease the discharge or obtain an individual permit:
 - i. Prevent all exposure to stormwater of the pollutant(s) for which the waterbody is impaired and document in the Stormwater Pollution Control Plan (SWPCP) procedures taken to prevent exposure onsite;
 - ii. Document in SWPCP that the pollutant(s) for which the waterbody is impaired is not present at the site, or
 - iii. Provide data and other technical information that demonstrates that the discharge is not expected to cause or contribute to an exceedance of the water quality standard for which the waterbody is impaired at the point of discharge to the waterbody if the pollutant(s) for which the waterbody is impaired are likely to be present at the site and DEQ has not issued a TMDL for the pollutant(s).
- b. A new discharger to an impaired water with a TMDL for pollutant(s) must meet the following conditions to obtain coverage under the permit:
 - i. DEQ presumes that compliance with the terms and conditions of the permit complies with the TMDL and will grant the owner or operator coverage under the permit, unless the TMDL establishes wasteload allocation(s) and additional requirements for industrial stormwater discharges.
 - ii. DEQ will inform the applicant if any additional limits or controls are necessary to be consistent with the assumptions of the wasteload allocation(s) in the TMDL(s), or if coverage under an individual permit is necessary.
- c. Conditions 1.a and b above do not apply if the waterbody is impaired for:
 - i. Biological communities and no pollutant, including indicator or surrogate pollutants, is specified as causing the impairment; or
 - ii. Temperature, hydrologic modifications, or impaired hydrology.

2. New Application for Permit Coverage

- a. The following facilities that are required to obtain coverage under this permit must:
 - i. New facility – Submit to DEQ or Agent (see Schedule D.4 for description of Agent) at least 60 calendar days before the planned activity that requires permit coverage, unless a later date is approved by DEQ or Agent, a complete application that includes the following:
 1. DEQ-approved application form;
 2. One paper copy and one electronic PDF of the SWPCP. If an Agent is receiving the application materials, submit two copies of the SWPCP; and
 3. Applicable permit fees.
 - ii. Existing facility with stormwater discharges associated with industrial activities identified in *Table 1: Sources Covered* on p. 3 and operating without coverage under any NPDES permit for those discharges – Immediately submit to DEQ or Agent, unless a later date is approved by DEQ or Agent, a complete application that includes the following:
 1. DEQ-approved application form;
 2. One paper copy and one electronic PDF of the SWPCP. If an Agent is receiving the application materials, submit two copies of the SWPCP; and
 3. Applicable permit fees.
 - iii. Existing facility that is designated by the Director as needing a stormwater permit pursuant to 40 CFR §122.26(a)(9)(i)(D) or is conducting an industrial activity that is not described in *Table 1: Sources Covered* on p. 3 that is notified by the Director that coverage under this

- permit is required (see Note 1 of the cover page of the permit) – Within 90 calendar days of being notified by DEQ that permit coverage is required, submit to DEQ or Agent a complete application that includes the following:
1. DEQ-approved application form;
 2. One paper copy and one electronic PDF of the SWPCP. If an Agent is receiving the application materials, submit two copies of the SWPCP; and
 3. Applicable permit fees.
- iv. Existing facility operating under permit coverage that intends to change industrial processes at the site to a new primary industrial sector – Submit to DEQ or Agent at least 60 calendar days before the planned change, unless a later date is approved by DEQ or Agent, a complete application that includes the following:
1. DEQ-approved application form;
 2. One paper copy and one electronic PDF of the SWPCP. If an Agent is receiving the application materials, submit two copies of the SWPCP; and
 3. Applicable permit fees.
- v. Existing facility whose stormwater discharges are authorized by an individual NPDES permit and seeks coverage under this permit – Submit to DEQ or Agent a complete application that includes the following:
1. DEQ-approved application form;
 2. One paper copy and one electronic PDF of the SWPCP. If an Agent is receiving the application materials, submit two copies of the SWPCP; and
 3. Applicable permit fees.
- b. Registration
- i. Prior to granting the applicant registration under this permit, DEQ will provide a 30-calendar day public review period. DEQ will respond in writing to any public comments on the applicant's SWPCP.
 - ii. DEQ or Agent will notify the applicant in writing if registration is granted or denied.
 - iii. If registration is denied or the applicant does not wish to be regulated by this permit, the applicant may apply for an individual permit in accordance with OAR 340-045-0030.

3. Renewal Application Requirements for Facilities that DID NOT Exceed Benchmark(s) Based on the 4th year Benchmark Evaluation of Data Collected by July 2011 pursuant to Schedule A.10 of 1200-Z permit that expires in June 2012.

- a. To ensure uninterrupted permit coverage for industrial stormwater discharges, an owner or operator of a facility registered under the 1200-Z permit that expires on June 30, 2012 must submit to DEQ or Agent, by March 31, 2012, unless a later date is approved in writing by DEQ or Agent, a complete application that includes the following:
- i. DEQ-approved renewal application form; and
 - ii. One paper copy and one electronic PDF of an updated SWPCP that meets the requirements of the new permit. If an Agent is receiving the application materials, submit two copies of the SWPCP.
- b. Registration
- i. Prior to granting the applicant registration under this permit, DEQ will provide a 30-calendar day public review period.
 - ii. DEQ or Agent will notify the applicant in writing if registration is approved or denied.
 - iii. If registration is denied or the applicant does not wish to be regulated by this permit, the applicant may apply for an individual permit in accordance with OAR 340-045-0030. If the applicant applies for an individual permit in accordance with OAR 340-045-0030, the applicant's coverage under this permit will continue until DEQ grants or denies the applicant's individual permit application.

4. Renewal Application Requirements for Facilities that Exceed Benchmark(s) based on the 4th year Benchmark Evaluation of Data Collected by July 2011 pursuant to Schedule A.10 of 1200-Z permit that expires in June 2012.

- a. To ensure uninterrupted permit coverage for industrial stormwater discharges, an owner or operator of a facility registered under the 1200-Z permit that expires on June 30, 2012 must submit to DEQ or Agent, by March 31, 2012, unless a later date is approved in writing by DEQ or Agent, a complete application that includes the following:
 - i. DEQ-approved renewal application form; and
 - ii. One paper copy and one electronic PDF of an updated SWPCP that meets the requirements of the new permit. If an Agent is receiving the application materials, submit two copies of the SWPCP.
 1. The owner or operator must include additional treatment measures in the SWPCP, which may include a combination of source control and treatment measures, with the goal of achieving the benchmark(s) in Schedule A.9 of the permit in future discharges. Include in the SWPCP the rationale for the selection of the treatment measures and the projected reduction of pollutant concentration(s). A licensed professional engineer (PE) or certified engineering geologist (CEG) shall design and stamp the portion of the SWPCP that addresses the treatment measures.
 2. The owner or operator may request a waiver including the additional treatment measures in the SWPCP if:
 - (a) The benchmark exceedance(s) is attributed solely to the presence of the pollutant(s) in natural background and is not associated with industrial activities at the site (see Schedule D.3, Definitions). The updated SWPCP must include the investigation and analysis used to demonstrate that the exceedances are due to natural background conditions and include any data collected by the permit registrant or others (including literature studies) that describe the levels of natural background pollutants in the discharge.
 - (b) Owner or operator implements or has implemented volume reduction measures, such as low impact development practices, that have or will result in reductions of the mass load of pollutants in the discharge below the mass equivalent of the benchmarks in Schedule A.9 of the permit. The updated SWPCP must include data and analysis to support this determination, including the description of the measure(s), date(s) implemented or expected to be implemented and the mass load analysis.
- b. Registration
 - i. Prior to granting the applicant registration under this permit, DEQ will provide a 30-calendar day public review period. DEQ will respond in writing to any public comments on the applicant's updated SWPCP.
 - ii. DEQ or Agent will notify the applicant in writing if registration is approved or denied.
 - iii. If registration is denied or the applicant does not wish to be regulated by this permit, the applicant may apply for an individual permit. If the applicant applies for an individual permit in accordance with OAR 340-045-0030, the applicant's coverage under this permit will continue until DEQ grants or denies the applicant's individual permit application.

5. Name Change or Transfer of Permit Coverage

- a. For a name change or transfer of permit coverage between legal entities, the owner or operator must submit to DEQ or Agent within 30 calendar days of the name change or planned transfer, a complete application that includes the following:
 - i. DEQ-approved Name Change or Permit Transfer application form;

- ii. An updated SWPCP, if revisions are necessary to address changed conditions. Submit one paper copy and one electronic PDF of the SWPCP. If an Agent is receiving the application materials, submit two copies of the SWPCP; and
- iii. Applicable permit fees.
- b. DEQ or Agent will notify the applicant in writing if the transfer is approved or denied. DEQ will transfer coverage under the permit after DEQ approves the application.
- c. For a name change or transfer of permit coverage between legal entities that intend to change industrial processes at the site to a new primary industrial sector, the owner or operator must submit a new application for coverage under this permit as required in condition 2.a.iv above.

6. “No Exposure” Conditional Exclusion from Permit Coverage

- a. An owner or operator that applies under 40 CFR §122.26(g)(2) for a “no exposure” conditional exclusion from coverage under this permit must:
 - i. Protect industrial materials and activities from exposure to rain, snow, snow melt, and runoff by using a storm resistant shelter, except as provided in the Environmental Protection Agency (EPA) Guidance Manual for Conditional Exclusion from Stormwater Permitting Based on “No Exposure” of Industrial Activities to Stormwater (EPA 833-B-00-001, June 2000). Storm resistant shelters with unsealed zinc or copper roofing materials are not eligible for the “no exposure” conditional exclusion.
 - ii. Ensure that contaminated soil or materials from previous operations is not exposed.
 - iii. Complete and sign a certification, on a form approved by DEQ, that there is no stormwater exposure to industrial materials and activities from the entire facility, except as provided in 40 CFR §122.26(g)(2). The EPA Guidance Manual (EPA 833-B-00-001) may be used to determine whether the no exposure criteria are met.
 - iv. Submit the signed certification to DEQ or Agent once every five years. If DEQ or Agent does not comment on the “no exposure” certification within 30 days, the “no exposure” conditional exclusion is deemed approved. DEQ or Agent may notify the applicant in writing or by email of its approval. The owner or operator must keep a copy of the certification on site and any notification of approval on site.
 - v. Allow DEQ or Agent to inspect the facility to determine compliance with the “no exposure” conditions, and allow DEQ or Agent to make any “no exposure” inspection reports available to the public upon request.
 - vi. Submit a copy of the “no exposure” certification to the municipal separate storm sewer system (MS4) operator (i.e., local municipality, district), upon their request, if facility discharges through an MS4; and allow inspection and public reporting by the MS4 operator.
- b. Limitations for obtaining or maintaining the exclusion:
 - i. This exclusion is available on a facility-wide basis only, not for individual outfalls.
 - ii. If industrial materials or activities become exposed to rain, snow, snow melt, or runoff, the conditions for this exclusion no longer apply. In such cases, the discharge becomes subject to enforcement for un-permitted discharge. Any conditionally exempt discharger who anticipates changes in circumstances must apply for and obtain permit coverage before the change of circumstances.
 - iii. DEQ or Agent retains the authority to make a determination that the “no exposure” conditional exclusion no longer applies and require the owner or operator to obtain permit coverage.

7. Authorized Non-Stormwater Discharges

- a. Subject to the terms and conditions of the permit, the following non-stormwater discharges are authorized:
 - i. Discharges from fire-fighting activities.
 - ii. Fire hydrant flushings.
 - iii. Potable water, including water line flushings.
 - iv. Uncontaminated condensate from air conditioners, coolers and other compressors, and from outside storage of refrigerated gases and liquids.
 - v. Irrigation drainage.
 - vi. Landscape watering, provided that all pesticides, herbicides, and fertilizer have been applied in accordance with manufacturer's instructions.
 - vii. Pavement wash waters where no detergents or hot water are used, no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed), and surfaces are swept before washing.
 - viii. Vehicle washing that does not use detergents or hot water unless the 1700-A NPDES permit is required for the discharge.
 - ix. Routine external building washdown that does not use detergents or hot water.
 - x. Uncontaminated ground water or spring water.
 - xi. Foundation or footing drains where flows are not contaminated with process materials.
 - xii. Incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of the facility, but not intentional discharges from the cooling tower (e.g., "piped" cooling tower blowdown or drains).
- b. Piping and drainage systems for interior floor drains and process wastewater discharge points must be separated from the storm drainage system to prevent inadvertent discharge of pollutants to waters of the state, unless the process wastewater discharge is authorized by another NPDES permit that allows commingled outfalls. Discharge from floor drains to the stormwater drainage system is a violation of this permit.
- c. Any other wastewater discharge or disposal, including stormwater mixed with wastewater, must be permitted in a separate permit, unless the wastewater is reused or recycled without discharge or disposal, or discharged to the sanitary sewer with approval from the sanitary sewer system operator.

8. Limitations on Coverage

- a. Pursuant to OAR 340-045-0033(10), DEQ may deny permit coverage to an applicant or revoke a permit registrant's coverage under the permit and require the owner or operator to apply for and obtain an individual permit.
- b. Coverage under this permit is not available under the following circumstances:
 - i. The discharges are regulated by another NPDES permit, except a Municipal Separate Storm Sewer System (MS4) permit.
 - ii. The discharges were included in a permit that has been or is in the process of being denied, terminated or revoked unless the source is otherwise eligible for coverage under this permit and DEQ approves the source's application to register under it and simultaneously revokes coverage under the other permit.
 - iii. New discharger to waters designated as Outstanding Resource Waters for antidegradation purposes under 40 CFR 131.13(a)(3) and OAR 340-041-0004.
- c. Any operator not wishing to be covered or limited by this general permit may make application for an individual NPDES permit in accordance with the procedures in OAR 340-045-0030.

SCHEDULE A

TECHNOLOGY BASED EFFLUENT LIMITATIONS

1. Narrative Technology-Based Effluent Limits

The permit registrant must meet the following narrative technology based effluent limits and any additional sector specific limits in Schedule E of the permit.

- a. Minimize exposure - Minimize exposure of manufacturing, processing, material storage areas, including loading and unloading, disposal, cleaning, maintenance and fixed fueling areas, to rain, snow, snowmelt and runoff. To the extent technologically available and economically practicable and achievable in light of best industry practice, the permit registrant must do the following:
 - i. Locate materials and activities indoors or protect them with storm resistant covers if stormwater from affected areas discharges to surface waters. Acceptable covers include, but are not limited to, permanent structures such as roofs or buildings and temporary covers such as tarps;
 - ii. Use grading, berming, or curbing to divert stormwater away from these areas and prevent stormwater contamination;
 - iii. Store all hazardous substances (see Schedule D.3, Definitions) within berms or other secondary containment devices to prevent leaks and spills from contaminating stormwater. If the use of berms or secondary containment devices is not possible, then store hazardous substances in areas that do not drain to the storm sewer system;
 - iv. Locate materials, equipment and activities in containment and diversion systems, including the storage of leaking or leak-prone vehicles and/or equipment awaiting maintenance, to prevent leaks and spills from contaminating stormwater;
 - v. Use drip pans or absorbents under or around leaking or leak-prone vehicles/equipment or store indoors. Drain fluids from equipment and vehicles prior to on-site storage or disposal;
 - vi. Perform all cleaning operations indoors, under cover or in bermed areas that prevent runoff and run-on and also captures overspray;
 - vii. Clean up spills or leaks promptly using absorbents or other effective methods to prevent discharge of pollutants and use spill/overflow protection equipment, and
 - viii. Ensure that all washwater drains to a proper collection system such as a closed-loop system or sanitary sewer and not discharged to the stormwater drainage system unless the washwater is an authorized non-stormwater discharge listed in condition 7 of the Permit Coverage and Exclusion from Coverage section of the permit.
- b. Oil and Grease - Employ oil/water separators, booms, skimmers or other methods to eliminate or minimize oil and grease contamination of stormwater discharges.
- c. Waste Chemicals and Material Disposal - Recycle or properly dispose of wastes to eliminate or minimize exposure of pollutants to stormwater. Cover all waste contained in bins or dumpsters where there is a potential for drainage of stormwater through the waste to prevent exposure of stormwater to these pollutants. Acceptable covers include, but are not limited to, storage of bins or dumpsters under roofed areas and use of lids or temporary covers such as tarps.
- d. Erosion and Sediment Control - Stabilize exposed areas and contain runoff using structural and nonstructural controls to minimize erosion of soil at the site and sedimentation. Employ erosion control methods such as vegetating exposed areas, graveling or paving to minimize erosion of soil at the site. Employ sediment control methods such as detention facilities, vegetated filter strips, bioswales, flow velocity dissipation devices or other permanent erosion or sediment controls to minimize sediment loads in stormwater discharges. For activities that involve land disturbance, the permit registrant must contact the local municipality to determine if there are other applicable requirements related to stormwater control.

- e. Debris Control - Employ screens, booms, settling ponds, or other methods to eliminate or minimize waste, garbage and floatable debris in stormwater discharges and ensure that this debris is not discharged to receiving waters.
- f. Dust Generation and Vehicle Tracking of Industrial Materials - Minimize generation of dust and off-site tracking of raw, final or waste materials.
- g. Housekeeping - Routinely clean all exposed areas that may contribute pollutants to stormwater using such measures as sweeping at regular intervals, litter pick-up, keeping materials orderly and labeled, prompt clean up of spills and leaks, proper maintenance of vehicles and stowing materials in appropriate containers.
- h. Spill Prevention and Response Procedure - Minimize the potential for leaks, spills and other releases that may be exposed to stormwater and develop plans that include methods for spill prevention and clean-up and notification procedures. At a minimum, the permit registrant must implement the following:
 - i. Procedures for plainly labeling containers (e.g., "Used Oil," "Spent Solvents," "Fertilizers and Pesticides," etc.) that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur;
 - ii. Preventative measures such as barriers between material storage and traffic areas, secondary containment provisions, and procedures for material storage and handling;
 - iii. Procedures for expeditiously stopping, containing, and cleaning up leaks, spills and other releases. Make the methods and procedures available to appropriate personnel. Employees who may cause, detect, or respond to a spill or leak must be trained in these procedures. Have the necessary clean-up material on-site and readily available, and
 - iv. Procedures for notification of appropriate facility personnel, emergency agencies, and regulatory agencies. Contact information must be in locations that are readily accessible and available.
- i. Preventative Maintenance - Regularly inspect, clean, maintain, and repair all industrial equipment and systems and materials handling and storage areas that are exposed to stormwater to avoid situations that may result in leaks, spills, and other releases of pollutants discharged to receiving waters. Clean, maintain and repair all control measures, including stormwater structures, catch basins, and treatment facilities to ensure effective operation and in a manner that prevents the discharge of pollution.
- j. Employee Education - Develop and maintain an employee orientation and education program to inform personnel on the components and goals of the SWPCP. Train all employees who work in areas where industrial materials or activities are exposed to stormwater, or who are responsible for implementing activities necessary to meet the conditions of this permit (e.g., inspectors, maintenance personnel). Training must cover both the specific control measures used to achieve the narrative technology based effluent limits such as spill response procedures and good housekeeping practices, and the monitoring, inspection, reporting and documentation requirements in the permit. The education and training must occur within 30 calendar days of hiring an employee who works in areas where stormwater is exposed to industrial activities or conducts duties related to the implementation of the SWPCP, and annually thereafter.
- k. Non-Stormwater Discharges - Eliminate any non-stormwater discharges not authorized by a NPDES permit (see condition 7 of the Permit Coverage and Exclusion from Coverage section of the permit for a list of authorized non-stormwater discharges).

2. Numeric Technology Based Effluent Limits based on Stormwater Specific Effluent Limitations Guidelines - The permit registrant with the following activities must comply with the applicable limitations:

Table 2. Numeric Effluent Limits based on Effluent Limit Guidelines

Regulated Activity	40 CFR Part/Subpart	Effluent Limit
Runoff from asphalt emulsion facilities	Part 443, Subpart A	See Schedule E.D.1
Runoff from material storage piles at cement manufacturing facilities	Part 411, Subpart C	See Schedule E.E.3
Runoff from hazardous waste landfills	Part 445, Subpart A	See Part E.K.3
Runoff from non-hazardous waste landfills	Part 445, Subpart B	See Part E.L.7
Runoff from coal storage piles at steam electric generating facilities	Part 423	See Schedule E.O.5

3. Control Measures for Technology Based Effluent Limits

- a. The permit registrant must select, design, install, implement and maintain control measures to meet the narrative and numeric technology based effluent limits in Schedule A.1, A.2 and Schedule E of the permit and described these measures in the SWPCP.
- b. For technology based effluent limits that require permit registrants to minimize pollutants in the discharge, permit registrants must reduce or eliminate pollutants to the extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practice. In selecting the appropriate control measures to meet these limits, permit registrant may consider the age of the equipment and facilities involved, the processes employed, the engineering aspects of the application of various types of control techniques, the pollutant reductions likely to be achieved, any adverse environmental or energy effects of potential measures, and the costs of achieving pollutant reductions.
- c. The permit registrant must select, design, install, implement and maintain the control measures in accordance with good engineering practices and manufacturer's specifications. If the permit registrant deviates from manufacturer's specifications provide justification for such deviation in the SWPCP.
- d. DEQ or Agent may require the permit registrant to take corrective actions to meet the narrative and numeric technology based effluent limits in Schedule A.1, A.2 and Schedule E of the permit.
 - i. If the permit registrant is failing to implement the control measures in the SWPCP, they must take corrective actions and implement the measures before the next storm event if practicable, unless otherwise approved by DEQ or Agent.
 - ii. If modifications to the control measures are necessary to meet the technology limits in the permit, permit registrant must revise SWPCP within 30 days, unless otherwise approved by DEQ or Agent. Permit registrant must implement the corrective actions before the next storm event if practicable or no later than 60 days from discovering the violation, unless a later date is approved by DEQ or Agent.

WATER QUALITY BASED EFFLUENT LIMITATIONS

4. Water Quality Standards

- a. The permit registrant must not cause or contribute to a violation of instream water quality standards as established in OAR 340-041.
- b. If at any time the permit registrant becomes aware, or DEQ or Agent determines, that the discharge causes or contributes to an exceedance of water quality standards, permit registrant must take the following corrective actions:
 - i. Within 24 hours of discovering the violation:
 1. Investigate the conditions that triggered the violation and
 2. Review the SWPCP and the selection, design, installation and implementation of control measures to ensure compliance with the permit.
 - ii. Within 30 days of the discovering the violation, submit a Water Quality Standards Corrective Action report to DEQ or Agent that documents the following:
 1. The results of the investigation, including the date the violation discovered and a brief description of the conditions that triggered the violation;
 2. Corrective actions taken or to be taken, including date corrective action completed or expected to be completed, and
 3. Document whether SWPCP revisions are necessary. If permit registrant determines that SWPCP revisions are necessary based on the corrective action review, submit a revised SWPCP to DEQ or Agent with the report.
 - iii. Permit registrant must implement the corrective actions before the next storm event if practicable or no later than 60 days from discovering the violation, unless a later date is approved by DEQ or Agent.
- c. DEQ may impose additional water quality-based limitations on a site-specific basis, or require the permit registrant to obtain coverage under an individual permit, if information in the application, required reports, or from other sources indicates that the discharge is causing or contributing to a violation of water quality standards, either in the receiving waterbody or a downstream waterbody. If DEQ determines that additional site specific requirements are necessary, DEQ will require the permit registrant to revise the SWPCP. DEQ will hold a 30-calendar day public review period on the revised SWPCP.

5. Discharges to Impaired Waters.

- a. Existing Discharger to an Impaired Water with a TMDL for Pollutant(s) - DEQ presumes that compliance with the terms and conditions of the permit complies with the TMDL, unless the TMDL establishes wasteload allocation(s) and additional requirements for industrial stormwater discharges. Permit registrant must meet Schedule A.4 and B.1.b of the permit. DEQ will inform the permit registrant if any additional limits or controls are necessary to be consistent with the assumptions of the wasteload allocation(s) in the TMDL(s), or if coverage under an individual permit is necessary. If DEQ determines that additional site specific requirements are necessary, DEQ will require the permit registrant revise the SWPCP to incorporate the requirements. DEQ will hold a 30-calendar day public review period on the revised SWPCP.
- b. Existing Discharger to an Impaired Water without a TMDL for Pollutant(s) - Permit registrant that discharges to an impaired water on the 303(d) list in effect at the time of permit assignment without a TMDL for the pollutant(s) must meet Schedule A.4 and B.1.b of the permit.
- c. New Discharger to an Impaired Water - New discharges to impaired waters authorized to discharge under this permit must implement and maintain any control measures or conditions on the site that enabled the permit registrant to become eligible for permit coverage and modify such measures or conditions as necessary pursuant to corrective action requirements in the permit. Permit registrant must meet Schedule A.4 and B.1.b of the permit.

STORMWATER POLLUTION CONTROL PLAN

6. Preparation and Implementation of SWPCP

- a. The SWPCP must be prepared by a person knowledgeable in stormwater management and familiar with the facility.
- b. The SWPCP must be signed and certified in accordance with 40 CFR §122.22.
- c. Permit registrants must implement the SWPCP and any revisions to the plan. Failure to implement any of the control measures or practices described in the SWPCP is a violation of the permit.
- d. The SWPCP must be kept current and updated as necessary to reflect any changes to the site. Update the SWPCP within 30 days of making the changes.

7. Required Elements

- a. Title Page - The title page of the SWPCP must contain the following information:
 - i. Name of the site.
 - ii. Name of the site operator or owner.
 - iii. The name of the person(s) preparing the SWPCP.
 - iv. Site or file number as indicated on the permit.
 - v. Contact person's name and telephone number.
 - vi. Physical address, including county, and mailing address if different.
- b. Site Description - The SWPCP must contain the following information, including any information required in Schedule E of the permit:
 - i. A general location map showing the location of the site in relation to surrounding properties, transportation routes, surface waters and other relevant features.
 - ii. A site map including the following:
 1. drainage patterns;
 2. drainage and discharge structures (piping, ditches, etc.);
 3. outline of the drainage area for each stormwater outfall;
 4. paved areas and buildings within each drainage area;
 5. areas used for outdoor manufacturing, treatment, storage, or disposal of significant materials;
 6. existing structural control measures for minimizing pollutants in stormwater runoff;
 7. structural features that reduce flow or minimize impervious areas;
 8. material handling and access areas;
 9. hazardous waste treatment, storage and disposal facilities;
 10. location of wells including waste injection wells, seepage pits, drywells, etc.;
 11. location of springs, wetlands and other surface waterbodies both on site and adjacent to the site;
 12. location of groundwater wells;
 13. location and description of authorized non-stormwater discharges;
 14. location of sampling points; and
 15. location of spill prevention and cleanup materials.
 - iii. A description of industrial activities conducted at the site or significant materials stored, used, treated or disposed of in a manner that allows exposure to stormwater. Include in the description the methods of storage, usage, treatment or disposal.
 - iv. For each area of the site where a reasonable potential exists for contributing pollutants to stormwater runoff, a description of the potential pollutant sources that could be present in stormwater discharges.
 - v. A description of control measures installed and implemented to meet the technology and water quality based requirements in Schedule A.1 –A.5 and any applicable sector specific requirements in Schedule E of the permit. Include in the description how the stormwater

- control measures address potential pollutant sources from industrial activities and significant materials on-site, spills and leaks and authorized non-stormwater discharges.
- vi. An estimate of the amount of impervious surface area (including paved areas and building roofs) and the total area drained by each stormwater outfall to be reported in area units.
 - vii. The name(s) of the receiving water(s) for stormwater drainage. If drainage is to a municipal storm sewer system, the name(s) of the ultimate receiving waters and the name of the municipality.
 - viii. The identification of the discharge outfall(s) and the point(s) where stormwater monitoring will occur as required by Schedule B.2.c. If multiple discharge outfalls exist but will not all be monitored, include a description of the outfalls and data or analysis supporting that the outfalls are representative as described in Schedule B.2.c.ii of the permit.
- c. Procedures and Schedules -The SWPCP must contain the following information to meet the technology based effluent limits in Schedule A.1 of the permit
- i. Spill Prevention and Response Procedure - Procedures for preventing and responding to spills and clean-up and notification procedures. Spills prevention plans required by other regulations may be substituted for this provision provided that stormwater management concerns are adequately addressed and the plan is kept onsite and included with the SWPCP. The location of clean-up materials must either be shown on the site drawings or indicated in the text of the SWPCP.
 - ii. Preventative Maintenance - Preventative maintenance procedures for conducting inspections, maintenance and repairs to prevent leaks, spills, and other releases and a schedule for regular pickup and disposal of waste materials, and inspections for leaks and conditions of drums, tanks and containers.
 - iii. Employee Education – Schedule for employee training.
- d. Monitoring - If an existing facility is renewing their coverage under this permit and included the benchmarks in the SWPCP used for the prior permit, update the SWPCP to reflect the new benchmarks in Schedule A.9 and any applicable sector specific benchmarks in Schedule E of the permit.

8. SWPCP Revisions

- a. Permit registrants must prepare SWPCP revisions in compliance with condition A.6 and clearly identify changes to activities on site and control measures.
- b. Submission of all SWPCP revisions is not required. SWPCP revisions must be submitted only if they are made for any of the following reasons:
 - i. Change in site contact(s);
 - ii. In response to a corrective action or inspection;
 - iii. Changes to the site or control measures that may significantly change the nature of pollutants present in stormwater discharge; or significantly increase the pollutant(s) levels, discharge frequency, discharge volume or flow rate, and
 - iv. Changes to the monitoring locations or outfalls.
- c. If submission of SWPCP revisions is required, permit registrant must submit the revised pages of the SWPCP or site map to DEQ or Agent within 30 days of making the revisions.
- d. Review of the revisions by DEQ or Agent prior to implementation is not required, except revision to location of monitoring locations. If the permit registrant does not receive a response to the revisions from DEQ or Agent within 30 days of receipt, the proposed revisions are deemed accepted.
- e. DEQ or Agent may require the permit registrant revise the SWPCP at any time. The permit registrant must submit the revisions within 30 days, unless a later date is approved by DEQ or Agent.
- f. SWPCP revisions are not subject to public notice and comment unless they are made in response to the water quality based effluent limit requirements in Schedule A.4 and A.5 of the permit.

STORMWATER DISCHARGE BENCHMARKS

9. Benchmarks

Benchmarks and reference concentrations for impairment pollutants are guideline concentrations, not limitations; a benchmark or reference concentration exceedance, therefore, is not a permit violation. They are designed to assist the permit registrant in determining whether its site controls are effectively reducing pollutant concentrations in stormwater discharged from the site. For facilities that are subject to federal limitations in Schedule A.2 of the permit, benchmarks apply to only those pollutants that are not limited by the federal regulations.

The following statewide benchmarks apply to each point source discharge of stormwater associated with industrial activity:

Table 3. Statewide Benchmarks

Parameter	Benchmark
Total Copper	0.02 mg/l
Total Lead	0.04 mg/L
Total Zinc	0.12 mg/L
pH*	5.5 – 9.0 SU
Total Suspended Solids*	100 mg/l
Total Oil & Grease*	10 mg/l
E. coli**	406 counts/100 ml

* See Schedule A.2 for list of facilities subject to federal limitations.

** The benchmark for E. coli applies only to active landfills and sewage treatment plants.

See Schedule E of the permit for the sector specific benchmarks that apply to certain industrial sectors/subsectors.

CORRECTIVE ACTIONS FOR IMPAIRMENT POLLUTANTS AND BENCHMARKS EXCEEDANCES

10. Tier I Corrective Action Response to Exceedances of Impairment Pollutants and Benchmarks:

- a. If stormwater sampling results exceed any of the statewide benchmarks in Schedule A.9 of the permit, sector specific benchmarks in Schedule E of the permit, or reference concentrations for impairment pollutants identified in the permit assignment letter, the permit registrant must within 30 calendar days of obtaining the monitoring results:
 - i. Investigate the cause of the elevated pollutant levels.
 - ii. Review the SWPCP and the selection, design, installation and implementation of control measures to ensure compliance with the permit. If permit registrant determines that SWPCP revisions are necessary based on corrective action review, submit the revised pages of the SWPCP to DEQ or Agent, including a schedule for implementing the control measures.
 - iii. Summarize the following information in a Tier I report that is retained on site and submitted to DEQ or Agent upon request:
 1. The results of the investigation.

2. Corrective actions taken or to be taken, including date corrective action completed or expected to be completed. Where the permit registrant determines that corrective action is not necessary, provide the basis for this determination.
 3. Document whether SWPCP revisions are necessary.
- b. Implement the corrective actions before the next storm event if possible or as soon as practicable.
 - c. Permit registrants are exempt from the Tier I corrective action requirements for exceedances of benchmark parameters addressed by the Tier II corrective actions requirements in Schedule A.11 and A.12 below.

11. Tier II Corrective Actions for Facilities that exceeded Benchmarks based on 4th year Benchmark Compliance Evaluation required by 1200-Z permit that expires June 2012 (see Condition 4 of Permit Coverage and Exclusion section)

- a. Permit registrants are exempt from the Tier II corrective action requirements in condition A.12 of the permit.
- b. No later than two years after obtaining permit coverage, the permit registrant must install and implement the stormwater treatment measures.
- c. After the stormwater treatment measures are implemented, if sampling results continue to exceed the same benchmark parameter(s) that triggered the Tier II corrective action requirements, permit registrant must within 30 days of obtaining the sample results, evaluate whether the treatment measures were properly installed, maintained and implemented and whether modifications to these measures are necessary. Summarize these findings in a Tier II Benchmark Exceedance report that is retained on site and submitted to DEQ or Agent annually with the Discharge Monitoring Report form.

12. Tier II Corrective Action Response based on 2nd year Geometric Mean Benchmark Evaluation:

- a. Permit registrants must evaluate the sampling results collected during the 2nd year of permit coverage and determine if the geometric mean of the samples collected at each monitored outfall exceeds any statewide benchmark in Schedule A.9 of the permit. The permit registrant must report this information with Discharge Monitoring Report (DMR) form for that monitoring year.
 - i. For the pH benchmark Tier II is triggered if more than three of eight samples are outside of the pH benchmark range.
 - ii. Permit registrants are not required to conduct this evaluation for the benchmark parameter(s) where DEQ has granted a monitoring waiver in Schedule B.4 of the permit.
- b. If the geometric mean of the sampling results for any outfall monitored exceeds any statewide benchmark (or if more than three of eight samples for any outfall are outside of the pH benchmark range), permit registrant must:
 - i. Revised SWPCP
 1. Revise the SWPCP to include additional stormwater treatment measures, which may include a combination of source control and treatment measures, with the goal of achieving the benchmark(s) in Schedule A.9 of the permit in future discharges. Include in the SWPCP the rationale for the selection of the measures, the projected reduction of pollutant concentration(s) and the schedule for implementing these measures.
 2. Have a licensed professional engineer (PE) or certified engineering geologist (CEG) design and stamp the portion of the SWPCP that addresses the stormwater treatment measures.
 3. Submit the revised SWCP to DEQ or Agent by December 31st of the 3rd year of permit coverage. If the permit registrant does not receive a response from DEQ or Agent within 30 days of receipt, the proposed revisions are deemed accepted.
 - ii. Tier II Deadline - Implement the treatment measures by June 30th of the 4th year of permit coverage.

- iii. After the stormwater treatment measures are implemented, if sampling results continue to exceed the same benchmark parameter(s) that triggered the Tier II corrective action requirements, permit registrant must within 30 days of obtaining the sample results, evaluate whether the treatment measures were properly installed, maintained and implemented and whether modifications to these measures are necessary. Summarize these findings in a Tier II Benchmark Exceedance report that is retained on site and submitted to DEQ or Agent annually with the Discharge Monitoring Report form.
- c. Tier II Waiver - Permit registrants may request a waiver from the requirements in Schedule A.12.b above if:
 - i. The benchmark exceedance(s) is attributed solely to the presence of the pollutant(s) in natural background and is not associated with industrial activities at the site (see Schedule D.3, Definitions). The Tier II waiver report must include the investigation and analysis used to demonstrate that the exceedances are due to natural background conditions and include any data collected by the permit registrant or others (including literature studies) that describe the levels of natural background pollutants in the discharge.
 - ii. Permit registrant implements or has implemented volume reduction measures, such as low impact development practices, that have or will result in reductions of the mass load of pollutants in the discharge below the mass equivalent of the benchmarks in Schedule A.9 of the permit. The Tier II Waiver report must include data and analysis to support this determination, including the description of the measure(s), date(s) implemented or expected to be implemented and the mass load analysis.
 - iii. Permit registrant must submit a Tier II Waiver report to DEQ or Agent by December 31st of the 3rd year of permit coverage. DEQ or Agent will grant or deny the waiver request within 60 days of its receipt.

13. Permit Compliance

- a. Any noncompliance with any of the requirements of this permit constitutes a violation of the Clean Water Act. Failure to take any required corrective actions in Schedule A.10 through A.12 of the permit constitute an independent, additional violation of this permit and the Clean Water Act. Any actions and time periods specified for remedying noncompliance do not absolve parties of the initial underlying violations.
- b. Where corrective action is triggered by an event that does not itself constitute a violation, such as a benchmark exceedance, there is no permit violation for the corrective actions provided that the permit registrant takes the corrective action within the deadlines identified in the permit.
- c. A new permit registrant with a new facility (that begins operation after July 1, 2012) or an existing facility (that was in operation before July 1, 2012 without a stormwater discharge permit) must implement stormwater control measures to meet the technology and water quality based requirements in Schedule A.1 – A.5 and any applicable sector specific requirements in Schedule E of the permit within 90 days of receiving permit coverage. Control measures that require capital improvements must be completed in accordance with the schedule set forth in the SWPCP, but must be completed within two years of receiving permit coverage.

SCHEDULE B MONITORING REQUIREMENTS

1. Pollutant Parameters

- a. Benchmarks - Permit registrants must monitor for the benchmark pollutants identified in Schedule A.9 of the permit. Permit registrants must also monitor for benchmarks specified for industrial sector(s), both the primary industrial activity and any co-located industrial activities, applicable to the discharge in Schedule E of the permit.
- b. Impairment Pollutants
 - i. Permit registrants that discharge to an impaired water without a TMDL for pollutant(s), must monitor for impairment pollutants for which a standard analytical method exists (see 40 CFR Part 136). Permit registrants that discharge to an impaired water with a TMDL are not required to monitor for impairment pollutant addressed by the TMDL, unless the TMDL establishes wasteload allocation(s) and additional requirements for industrial stormwater discharges.
 - ii. Before granting coverage under the permit, DEQ will identify in the permit assignment letter the impairment pollutants that the permit registrants is required to monitor and reference concentrations for these pollutants. The reference concentrations will be based on the acute aquatic life criteria, if criteria are approved for the pollutant. If there is not an acute criteria for the pollutant, DEQ will use the chronic criteria. If there is not a chronic criteria for the pollutant, DEQ will use the human health criteria.
 1. If the pollutant for which the waterbody is impaired is suspended solids, turbidity or sediment/sedimentation, permit registrants must monitor for Total Suspended Solids (TSS).
 2. If the pollutant for which the waterbody is impaired is expressed in the form of an indicator or surrogate pollutant, permit registrants must monitor for that indicator or surrogate pollutant.
 3. No monitoring is required when a waterbody's impairment is due to one of the following:
 - (a) Biological communities are impaired but no pollutant, including indicator or surrogate pollutants, is specified as causing the impairment.
 - (b) When a waterbody's impairment is related to hydrologic modifications, impaired hydrology, or temperature.
- c. Numeric Effluent limits pursuant to Federal Effluent Limit Guidelines - Permit registrants subject to effluent limit guidelines must monitor for the parameters in Schedule A.2 of the permit at each outfall containing the discharges from activities identified in the guidelines.
- d. Additional pollutants - There are no benchmarks, reference concentrations or numeric effluent limits for these pollutants. The purpose of this monitoring is to determine to what extent the pollutants are present in industrial stormwater discharges.
 - i. Permit registrants must monitor for cadmium, nickel, chromium.
 - ii. Permit registrants with the Industrial Sector M (Auto Salvage Facilities, SIC code 5015) as a primary industrial activity and any co-located industrial activities must sample for mercury.
 - iii. Permit registrants with the Sector N (Scrap Recycling Facilities, SIC code 5093), as a primary industrial activity and any co-located industrial must sample for mercury and PCBs.

2. Sampling Procedures

- a. Grab Sampling
 - i. For each outfall monitored, collect a single grab sample of stormwater discharge or a series of composite samples. Grab composite or time or flow weighted composite samples may be used as an alternative, except when monitoring for pH, oil and grease and E. coli. Samples must be collected from same storm event.

- ii. Permit registrants may use a single grab sample to satisfy multiple pollutant parameter monitoring requirements (e.g., required to monitor for zinc as benchmark and impairment pollutant).
- b. Representative Sample - Samples must be representative of the discharge. Unless approved in writing by DEQ or Agent, all samples must be taken at monitoring points specified in the SWPCP before the stormwater joins or is diluted by stormwater from a different drainage area of the facility or areas outside the facility; wastewater, or any other wastestream, body of water or substance unless:
 - i. Otherwise approved in writing by DEQ or Agent; or
 - ii. On-site stormwater flows are combined to utilize a common treatment facility (for example, filter or settling pond). In this case, monitor the discharge from the treatment facility.
- c. Multiple Point Source Discharges - Each stormwater outfall must be monitored unless:
 - i. Outfall serves an area with no exposure of stormwater to industrial activities; or
 - ii. Outfall has effluent that is substantially similar to the effluent(s) of a monitored outfall and the same BMPs are implemented and maintained at the similar outfalls or drainage areas that lead to the outfalls. Substantially similar effluent(s) are discharges from drainage areas serving comparable activities where the discharges are expected to be similar in composition. The determination of substantial similarity or effluent(s) must be based on past monitoring or an analysis of industrial activities and site characteristics. The data or analysis supporting that the outfalls are representative must be included in the SWPCP. This provision does not apply to outfall(s) covered by a numeric effluent limit.
- d. Timing - Monitor the discharge during the first 12 hours of the discharge event, which is a measureable storm event resulting in an actual discharge from a site. If it is not practicable to collect the sample within this period, collect the sample as soon as practicable and provide documentation with the Discharge Monitoring Report form why it was not practicable to take samples within the period. Permit registrant is not required to sample outside of regular business hours or during unsafe conditions. Regular business hours are from 8 am to 5 pm on week days, unless the permit registrant specifies different hours in the SWPCP.
- e. Monitoring Frequency - Permit registrants must monitor their stormwater discharge according to the frequency described in Table 4 below
 - i. Monitoring year is from July 1st to June 30th. The stormwater samples must be collected at least 14 days apart.
 - ii. Permit registrant may collect more samples than the minimum frequency described below, but must report this additional data in the Discharge Monitoring Report form. These additional samples must be included to establish a monitoring waiver in Schedule B.4 or to conduct the geometric mean evaluation in Schedule A.12 of the permit.
 - iii. Exceedance of Numeric Effluent Limit in Schedule A.2 of the permit - Conduct follow-up monitoring of any pollutant that exceeds the numeric effluent limit(s) within 30 days (or during the next measurable storm event should none occur within 30 days) of receiving the monitoring results. If the follow-up monitoring exceeds the numeric effluent limit, the permit registrant must monitor the discharge four times per year until compliance with the numeric effluent limit.

Table 4: Monitoring Frequency

Pollutant Category	Minimum Frequency	Monitoring Year
Benchmarks in Schedule A.9, and any applicable sector specific benchmarks in Schedule E	Four times per Year Two samples on or before Dec. 31 and two samples on or after Jan. 1.	All Five Years of Permit Coverage, unless Waiver Applies
Impairment Pollutants, if applicable	Two times per Year One sample before Dec. 31 and One sample after Jan. 1.	All Five Years of Permit Coverage, unless Waiver Applies
Numeric Effluent Limits Guidelines, if applicable	One time per Year, unless exceedance occurs	All Five Years of Permit Coverage
Pollutant Category	Minimum Frequency	Monitoring Year
Additional Pollutants:		
Mercury and PCBs for facilities with SIC 5093	Four times per Year Two samples before Dec. 31 and two samples after Jan.1.	First Year of Permit Coverage
Mercury for facilities with SIC 5015	Four times per Year Two samples before Dec. 31 and two samples after Jan. 1.	First Year of Permit Coverage
Cadmium, Chromium and Nickel	Four times per Year Two samples before Dec. 31 and two samples after Jan. 1.	First Two years of Permit Coverage

3. Monitoring Variance

- a. Permit registrants may request a monitoring variance for missed samples due to no discharge from the site if one of the following criteria is met:
 - i. State or federal authorities declared the year a drought year.
 - ii. Demonstrate that rainfall in the area where the permit registrant's facility is located was 20% or more below the three-year average rainfall for that area.
 - iii. Demonstrate to DEQ or Agent's satisfaction that discharge did not occur due to use of on-site retention system or other stormwater treatment system, or infrequent storm events of sufficient magnitude to produce run-off during normal business hours and safe conditions.
- b. For each missed sample, report in the Discharge Monitoring Report form that no discharge occurred and include supporting data and analysis demonstrating why the monitoring did not occur.

4. Monitoring Waiver

- a. Benchmark and Impairment Pollutant Monitoring
 - i. A monitoring waiver may be requested in the following circumstances:

1. If the geometric mean of four consecutive sampling results is below the statewide benchmarks in Schedule A.9 of the permit, sector specific benchmarks in Schedule E of the permit, or reference concentrations for impairment pollutants identified in the permit assignment letter, the permit registrant is not required to monitor for these pollutant(s) for the remainder of the permit term. The permit registrant must submit to DEQ or Agent the analytical laboratory results from the four sampling events.
 - (a) Results from sampling events cannot be averaged.
 - (b) Monitoring waivers may be allowed for individual parameters.
 2. If the exceedance(s) is attributed solely to the presence of the pollutant(s) in natural background and is not associated with industrial activities at the site, DEQ or Agent will consider these samples as being below the benchmark(s) or reference concentrations for impairment pollutant(s). Permit registrant must submit a Natural Background Waiver report to DEQ that describes the investigation and analysis to demonstrate that the exceedances are due to natural background conditions and includes any data collected by the permit registrant or others (including literature studies) that describe the levels of natural background pollutants in the discharge.
 3. If a facility is inactive and unstaffed and no industrial materials or activities are exposed to stormwater, the permit registrant is not required to conduct monitoring for the remainder of the permit term.
 - (a) Permit registrant must provide documentation with the DMR indicating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to precipitation, in accordance with the substantive requirements in 40 CFR 122.26(g)(4)(iii).
 - (b) The statement must be signed and certified in accordance with Schedule F of the permit.
 - ii. The permit registrant must submit to DEQ or Agent a request to exercise the monitoring waiver based on the conditions above and include the documentation to support the request. If DEQ or Agent does not comment within 30 calendar days, the monitoring waiver is deemed approved.
 1. There is no reduction in monitoring allowed for:
 - (a) Visual observations, unless the site is inactive or unstaffed and there are no industrial materials or activities exposed to stormwater and permit registrant meets requirements in Schedule B.4.a.i.3 of the permit.
 - (b) Monitoring for federal numeric effluent limit guidelines.
 2. Revocation of Monitoring Waiver
 - (a) The permit registrant must reinstate the monitoring of stormwater discharge if:
 - (i) Prior monitoring efforts used to establish the monitoring waiver were improper or sampling results were incorrect;
 - (ii) Changes to site conditions are likely to affect stormwater discharge characteristics;
 - (iii) Additional monitoring occurs and the sampling results exceed benchmark(s), or
 - (iv) For inactive or unstaffed sites, the facility becomes active and/or staffed or industrial materials or activities become exposed to stormwater
 - (b) DEQ or Agent will notify the permit registrant in writing if the monitoring waiver is revoked.
- 5. Additional Monitoring** - DEQ may notify permit registrants in writing of additional discharge monitoring requirements. Any such notice will state the reasons for the monitoring, locations and pollutants to be monitored, frequency and period of monitoring, sample types and reporting requirements.

- 6. A New Permit Registrant Discharging to Clackamas River, McKenzie River above Hayden Bridge (River Mile 15) or North Santiam River** (For potential or existing dischargers that did not have a permit prior to January 28, 1994, and existing dischargers that have a NPDES stormwater discharge permit but request an increased load limitation.)
- a. Not later than 180 calendar days after obtaining permit coverage, permit registrant must submit to DEQ a monitoring and water quality evaluation program. This program must be effective in evaluating the in-stream impacts of the discharge as required by OAR 340-041-0350.
 - b. Within 30 calendar days of DEQ approval, the permit registrant must implement the monitoring and water quality evaluation program.

INSPECTIONS

- 7. Permit registrant must meet the following inspection requirements:**
- a. Conduct inspections on a monthly basis when the facility is in operation of areas where industrial materials or activities are exposed to stormwater and areas where stormwater control measures, structures, catch basins, and treatment facilities are located.
 - i. Inspect the facility for the following:
 1. Industrial materials, residue, or trash that may have or could come into contact with stormwater;
 2. Leaks or spills from industrial equipment, drums, tanks, and other containers;
 3. Offsite tracking of industrial or waste materials, or sediment where vehicles enter or exit the site, excluding employee only entrances and exits;
 4. Tracking or blowing of raw, final, or waste materials;
 5. Evidence of, or the potential for, pollutants entering the drainage system;
 6. Evidence of pollutants discharging to receiving waters at all outfall(s), and the condition of and around the outfall;
 7. Presence of floating solids (associated with industrial activity), foam, visible oil sheen, discoloration of the stormwater discharge. Conduct visual observations when stormwater discharge is occurring during regular business hours and safe conditions, and
 8. Properly functioning stormwater control measures.
 - ii. Exception for inactive or unstaffed sites as long as there are no industrial materials or activities exposed to stormwater. If circumstances change and industrial materials or activities become exposed to stormwater or the facility becomes active and/or staffed, this exception no longer applies and permit registrant must immediately resume monthly facility inspections.
 - iii. For exceptionally large facilities where monthly inspections of all areas identified above are infeasible, DEQ or Agent may approve in writing a modified inspection frequency.
 - b. Document the following in an inspection report that is retained on-site and submitted to DEQ or Agent upon request:
 - i. The inspection date and time;
 - ii. Control measures needing cleaning, replacement, maintenance, reconditioning or repair;
 - iii. The condition of the drainage/conveyance system and need for maintenance;
 - iv. Previously unidentified sources of pollutants, and
 - v. Stormwater discharge observations and whether discharge contained floating solids (associated with industrial activity), foam, visible oil sheen, and was discolored. If these pollutants are present in the discharge, describe corrective action taken or will be taken to remedy the problem.

REPORTING AND RECORDKEEPING REQUIREMENTS

8. Reporting Monitoring Data

- a. The permit registrant must submit a DEQ-approved Discharge Monitoring Report (DMR) form to DEQ or Agent by July 31st of each year. Identify in the DMR the sampling results for the previous monitoring year and include the laboratory results from the testing laboratory.
- b. The permit registrant must report the minimum detection level and analytical methods for the parameters analyzed. Non-detections must be reported as "ND" with the detection level in mg/L parentheses, e.g., ND (0.005 mg/L). In calculating the geometric mean, one-half of the detection level must be used for non-detections.

9. Exceedance Report for Numeric Effluent Limits

If follow-up monitoring pursuant to Schedule B.2.e.iii of the permit exceeds a numeric effluent limit, permit registrant must submit an Exceedance Report to DEQ or Agent no later than 30 calendar days after receiving the lab results. The report must include the monitoring data from this monitoring event and the preceding monitoring event(s) and an explanation of the situation; what the permit registrant has done to correct the violation or intends to do if the corrective actions are not complete.

10. Record Keeping Procedures- Permit registrant must record and maintain at the facility the following information. All records must be retained by the permit registrant for at least three (3) years and made available to DEQ, Agent or local municipality upon request.

- a. A copy of the SWPCP and any revisions, corrective actions reports, and monthly inspection reports.
- b. Inspection, maintenance, repair and education activities.
- c. Spills or leaks of significant materials (See Schedule D.3, Definitions) that impacted or had the potential to impact stormwater or surface waters. Include the corrective actions to clean up the spill or leak as well as measures to prevent future problems of the same nature.

SCHEDULE D SPECIAL CONDITIONS

1. **Releases in Excess of Reportable Quantities.** This permit does not relieve the permit registrant of the reporting requirements of 40 CFR §117 Determination of Reportable Quantities for Hazardous Substances and 40 CFR §302 Designation, Reportable Quantities, and Notification.
2. **Availability of SWPCP and Monitoring Data.** The Stormwater Pollution Control Plan (SWPCP) or stormwater monitoring data must be made available to government agencies responsible for stormwater management in the permit registrant's area.
3. **Definitions**
 - a. Capital Improvements means the following improvements that require capital expenditures:
 - i. Treatment best management practices including but not limited to settling basins, oil/water separation equipment, grassy swales, detention/retention basins, and media filtration devices.
 - ii. Manufacturing modifications that incur capital expenditures, including process changes for reduction of pollutants or wastes at the source.
 - iii. Concrete pads, dikes and conveyance or pumping systems utilized for collection and transfer of stormwater to treatment systems.
 - iv. Roofs and appropriate covers for manufacturing areas.
 - v. Volume reduction measures, including low impact development control measures.
 - b. Best Management Practices (BMPs) – schedules of activities, practices (and prohibitions of practices), structures, vegetation, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the state. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. See 40 CFR 122.2.
 - c. Co-located Industrial Activities means any industrial activities, excluding the primary industrial activity(ies), located on-site that are defined by the stormwater regulations at 122.26(b)(14)(i - ix, xi) and OAR 340-045-0033(5), and identified in *Table 1: Sources Covered* on page 3 of the permit. An activity at a facility is not considered co-located if the activity, when considered separately, does not meet the description of a category of industrial activity covered by the stormwater regulations or identified in Table 1 of the permit.
 - d. Control Measure means any Best Management Practice or other method used to prevent or reduce the discharge of pollutants to waters of the state.
 - e. Existing Discharger means an operator applying for coverage under this permit for discharges authorized previously under an NPDES general or individual permit.
 - f. Impaired Waters means those waters identified by a State or EPA pursuant to Section 303(d) of the Clean Water Act as not meeting applicable State water quality standards for one or more pollutants. This may include both waters with approved TMDLs, and those for which a TMDL has not yet been approved.
 - g. Hazardous Substances as defined in 40 CFR §302 Designation, Reportable Quantities, and Notification.
 - h. High Quality Waters means those waters that meet or exceed levels that are necessary to support the propagation of fish, shellfish, and wildlife; recreation in and on the water; and other designated beneficial uses for a given pollutant. Waters identified on the 303(d) list as not meeting applicable state water quality standards for a given pollutant are not high quality waters.
 - i. Industrial Activity means the categories of industrial activities included in the definition of “stormwater discharges associated with industrial activity” as defined in 40 CFR 122.26(b)(14)(i)-(ix) and (xi).
 - j. Industrial Stormwater means stormwater runoff from industrial activity.

- k. Material Handling Activities include the storage, loading and unloading, transportation or conveyance of raw material, intermediate product, finished product, by-product or waste product.
- l. Minimize means reduce or eliminate, or both, to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practice.
- m. New Discharger means a facility from which there is a discharge, that did not commence the discharge at a particular site prior to August 13, 1979, that is not a new source, and that has never received a finally effective NPDES permit for discharges at that site. See 40 CFR 122.2.
- n. New Source means any building, structure, facility, or installation from which there is or may be a “discharge of pollutants,” the construction of that commenced: after promulgation of standards of performance under section 306 of the CWA that are applicable to such source, or after proposal of standards of performance in accordance with section 306 of the CWA that are applicable to such source, but only if the standards are promulgated in accordance with section 306 within 120 days of their proposal. See 40 CFR 122.2.
- o. Outstanding Resource Waters means those waters designated by the commission where existing high quality waters constitute an outstanding state or national resource based on their extraordinary water quality or ecological values or where special water quality protection is needed to maintain critical habitat areas.
- p. No exposure means all industrial materials or activities are protected by a storm-resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. See 40 CFR 122.26(g).
- q. Natural background pollutants include substances that are naturally occurring in soils or groundwater. Natural background pollutants do not include legacy pollutants from earlier activity on the site, or pollutants in run-on from neighboring sources that are not naturally occurring.
- r. Operator means any entity with a stormwater discharge associated with industrial activity that meets either of the following two criteria:
 - i. The entity has operational control over industrial activities, including the ability to modify those activities; or
 - ii. The entity has day-to-day operational control of activities at a facility necessary to ensure compliance with the permit (e.g., the entity is authorized to direct workers at a facility to carry out activities required by the permit).
- s. Point Source Discharge means a discharge from any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, or conduit.
- t. Primary industrial activity means any activities performed on-site that are (1) identified by the facility’s primary SIC code; or (2) included in the narrative descriptions of 122.26(b)(14)(i), (iv), (v), or (vii), and (ix). Narrative descriptions in 40 CFR 122.26(b)(14) identified above include: (i) activities subject to stormwater effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards; (iv) hazardous waste treatment storage, or disposal facilities including those that are operating under interim status or a permit under subtitle C of the Resource Conservation and Recovery Act (RCRA); (v) landfills, land application sites and open dumps that receive or have received industrial wastes; (vii) steam electric power generating facilities; and (ix) sewage treatment works with a design flow of 1.0 mgd or more.
- u. Significant Materials includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical that a facility is required to report pursuant to section 313 of title III of SARA; fertilizers; pesticides; and waste products such as ash, slag, and sludge that have the potential to be released with stormwater discharges.
- v. Stormwater Associated With Industrial Activity includes, but is not limited to, stormwater discharges from the following:
 - i. Industrial plant yards;

- ii. Immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility;
- iii. Material handling sites (Material handling activities include the storage, loading and unloading, transportation or conveyance of raw material, intermediate product, finished product, by-product or waste product.);
- iv. Refuse sites;
- v. Sites used for the application or disposal of process waste waters (as defined in 40 CFR § 401);
- vi. Sites used for storage or maintenance of material handling equipment;
- vii. Sites used for residual treatment, storage, or disposal; shipping and receiving areas;
- viii. Manufacturing buildings;
- ix. Storage areas (including tank farms) for raw materials, and intermediate and finished products;
- x. Areas where industrial activity has taken place in the past and significant materials remain and are exposed to stormwater. Significant materials includes, but are not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical that a facility is required to report pursuant to section 313 of title III of SARA; fertilizers; pesticides; and waste products such as ash, slag, and sludge that have the potential to be released with stormwater discharges; and
- xi. Stormwater run-on that commingles with stormwater discharges associated with industrial activity at the facility.
- w. Stormwater Conveyance means a sewer, ditch, or swale that is designed to carry stormwater; a stormwater conveyance may also be referred to as a storm drain or storm sewer.
- x. Total Maximum Daily Load (TMDL) is the sum of the individual Waste Load Allocations (WLAs) for point sources and Load Allocations (LAs) for nonpoint sources and background. See OAR 340-041-0002(65) and OAR 340-042-0030(15).
- y. Treatment measures mean Best Management Practices that are intended to remove pollutants from stormwater. These measures include, but are not limited to: settling basins, oil/water separation equipment, detention/retention basins, media filtration devices, electrocoagulation, constructed wetlands and bioswales.
- z. Wasteload Allocation (WLA) means the portion of receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution. WLAs constitute a type of water quality-based effluent limitation. See OAR 340-041-0002(67).

4. Local Public Agencies Acting as DEQ's Agent

DEQ has authorized certain local governments and special districts to act as its Agent in implementing portions of this permit. The Agent may be authorized to conduct the following activities, including but not limited to: application and SWPCP review, inspections, monitoring data review, stormwater and wastewater monitoring, and verification and approval of no-exposure certifications. Where DEQ has entered into such an agreement, DEQ or its Agent will notify the permit registrant of where to submit no-exposure certifications, and other notifications or correspondence associated with this permit.

Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart N – Sector N – Scrap Recycling and Waste Recycling Facilities.

E.N.1 Additional Technology-Based Effluent Limits.

E.N.1.1 Scrap and Waste Recycling Facilities (Non-Source Separated, Nonliquid Recyclable Materials).

Requirements for facilities that receive, process, and do wholesale distribution of nonliquid recyclable wastes (e.g., ferrous and nonferrous metals, plastics, glass, cardboard, and paper). These facilities may receive both nonrecyclable and recyclable materials. This section is not intended for those facilities that accept recyclables only from primarily non-industrial and residential sources.

- E.N.1.1.1 Inbound Recyclable and Waste Material Control Program.** Minimize the chance of accepting materials that could be significant sources of pollutants by conducting inspections of inbound recyclables and waste materials. Following are some control measure options: (a) provide information and education to suppliers of scrap and recyclable waste materials on draining and properly disposing of residual fluids (e.g., from vehicles and equipment engines, radiators and transmissions, oil filled transformers, and individual containers or drums) and removal of mercury switches from vehicles before delivery to your facility; (b) establish procedures to minimize the potential of any residual fluids from coming into contact with precipitation or runoff; (c) establish procedures for accepting scrap lead-acid batteries (additional requirements for the handling, storage, and disposal or recycling of batteries are contained in the scrap lead-acid battery program provisions in Schedule E.N.3.2.6); (d) provide training targeted for those personnel engaged in the inspection and acceptance of inbound recyclable materials; and (e) establish procedures to ensure that liquid wastes, including used oil, are stored in materially compatible and non-leaking containers and are disposed of or recycled in accordance with the Resource Conservation and Recovery Act (RCRA).
- E.N.1.1.2 Scrap and Waste Material Stockpiles and Storage (Outdoor).** Minimize contact of stormwater runoff with stockpiled materials, processed materials, and nonrecyclable wastes. Following are some control measure options: (a) permanent or semi-permanent covers; (b) sediment traps, vegetated swales and strips, catch basin filters, and sand filters to facilitate settling or filtering of pollutants; (c) dikes, berms, containment trenches, culverts, and surface grading to divert runoff from storage areas; (d) silt fencing; and (e) oil and water separators, sumps, and dry absorbents for areas where potential sources of residual fluids are stockpiled (e.g., automobile engine storage areas).
- E.N.1.1.3 Stockpiling of Turnings Exposed to Cutting Fluids (Outdoor Storage).** Minimize contact of surface runoff with residual cutting fluids by: (a) storing all turnings exposed to cutting fluids under some form of permanent or semi-permanent cover, or (b) establishing dedicated containment areas for all turnings that have been exposed to cutting fluids. Any containment areas must be constructed of concrete, asphalt, or other equivalent types of impermeable material and include a barrier (e.g., berms, curbing, elevated pads) to prevent contact with stormwater run-on. Stormwater runoff from these areas can be discharged, provided that any runoff is first collected and treated by an oil and water separator or its equivalent. You must regularly maintain the oil and water separator (or its equivalent) and properly dispose of or recycle collected residual fluids.

- E.N.1.1.4 Scrap and Waste Material Stockpiles and Storage (Covered or Indoor Storage). Minimize contact of residual liquids and particulate matter from materials stored indoors or under cover with surface runoff. Following are some control measure options: (a) good housekeeping measures, including the use of dry absorbents or wet vacuuming to contain, dispose of, or recycle residual liquids originating from recyclable containers, or mercury spill kits for spills from storage of mercury switches; (b) not allowing washwater from tipping floors or other processing areas to discharge to the storm sewer system; and (c) disconnecting or sealing off all floor drains connected to the storm sewer system.
- E.N.1.1.5 Scrap and Recyclable Waste Processing Areas. Minimize surface runoff from coming in contact with scrap processing equipment. Pay attention to operations that generate visible amounts of particulate residue (e.g., shredding) to minimize the contact of accumulated particulate matter and residual fluids with runoff (i.e., through good housekeeping, preventive maintenance, etc.). Following are some control measure options: (a) regularly inspect equipment for spills or leaks and malfunctioning, worn, or corroded parts or equipment; (b) establish a preventive maintenance program for processing equipment; (c) use dry-absorbents or other cleanup practices to collect and dispose of or recycle spilled or leaking fluids or use mercury spill kits for spills from storage of mercury switches; (d) on unattended hydraulic reservoirs over 150 gallons in capacity, install protection devices such as low-level alarms or equivalent devices, or secondary containment that can hold the entire volume of the reservoir; (e) containment or diversion structures such as dikes, berms, culverts, trenches, elevated concrete pads, and grading to minimize contact of stormwater runoff with outdoor processing equipment or stored materials; (f) oil and water separators or sumps; (g) permanent or semi-permanent covers in processing areas where there are residual fluids and grease; (h) retention or detention ponds or basins; sediment traps, and vegetated swales or strips (for pollutant settling and filtration); (i) catch basin filters or sand filters.
- E.N.1.1.6 Scrap Lead-Acid Battery Program. Properly handle, store, and dispose of scrap lead-acid batteries. Following are some control measure options (a) segregate scrap lead-acid batteries from other scrap materials; (b) properly handle, store, and dispose of cracked or broken batteries; (c) collect and dispose of leaking lead-acid battery fluid; (d) minimize or eliminate (if possible) exposure of scrap lead-acid batteries to precipitation or runoff; and (e) provide employee training for the management of scrap batteries.
- E.N.1.1.7 Spill Prevention and Response Procedures. (See also Schedule A.1.h) Install alarms and/or pump shutoff systems on outdoor equipment with hydraulic reservoirs exceeding 150 gallons in the event of a line break. Alternatively, a secondary containment system capable of holding the entire contents of the reservoir plus room for precipitation can be used. Use a mercury spill kit for any release of mercury from switches, anti-lock brake systems, and switch storage areas.
- E.N.1.1.8 Supplier Notification Program. As appropriate, notify major suppliers which scrap materials will not be accepted at the facility or will be accepted only under certain conditions.

E.N.1.2 Waste Recycling Facilities (Liquid Recyclable Materials).

- E.N.1.2.1 Waste Material Storage (Indoor). Minimize or eliminate contact between residual liquids from waste materials stored indoors and from surface runoff. The plan may refer to applicable portions of other existing plans, such as Spill Prevention, Control, and Countermeasure (SPCC) plans required under 40 CFR Part 112. Following are some control measure options (a) procedures for material handling (including labeling and marking); (b) clean up spills and leaks with dry absorbent materials, a wet vacuum system; (c) appropriate containment structures (trenching, curbing, gutters, etc.); and (d) a drainage system, including appurtenances (e.g., pumps or ejectors, manually operated valves), to handle discharges from diked or bermed areas. Drainage should be discharged to an appropriate treatment facility or sanitary sewer system, or otherwise disposed of properly. These discharges may require coverage under a separate NPDES wastewater permit or industrial user permit under the pretreatment program.
- E.N.1.2.2 Waste Material Storage (Outdoor). Minimize contact between stored residual liquids and precipitation or runoff. The plan may refer to applicable portions of other existing plans, such as SPCC plans required under 40 CFR Part 112. Discharges of precipitation from containment areas containing used oil must also be in accordance with applicable sections of 40 CFR Part 112. Following are some control measure options (a) appropriate containment structures (e.g., dikes, berms, curbing, pits) to store the volume of the largest tank, with sufficient extra capacity for precipitation; (b) drainage control and other diversionary structures; (c) corrosion protection and/or leak detection systems for storage tanks; and (d) dry-absorbent materials or a wet vacuum system to collect spills.
- E.N.1.2.3 Trucks and Rail Car Waste Transfer Areas. Minimize pollutants in discharges from truck and rail car loading and unloading areas. Include measures to clean up minor spills and leaks resulting from the transfer of liquid wastes. Following are two control measure options: (a) containment and diversionary structures to minimize contact with precipitation or runoff, and (b) dry clean-up methods, wet vacuuming, roof coverings, or runoff controls.
- E.N.1.3 Recycling Facilities (Source-Separated Materials). The following identifies considerations for facilities that receive only source-separated recyclables, primarily from non-industrial and residential sources.
- E.N.1.3.1 Inbound Recyclable Material Control. Minimize the chance of accepting nonrecyclables (e.g., hazardous materials) that could be a significant source of pollutants by conducting inspections of inbound materials. Following are some control measure options: (a) providing information and education measures to inform suppliers of recyclables about acceptable and non-acceptable materials, (b) training drivers responsible for pickup of recycled material, (c) clearly marking public drop-off containers regarding which materials can be accepted, (d) rejecting nonrecyclable wastes or household hazardous wastes at the source, and (e) establishing procedures for handling and disposal of nonrecyclable material.
- E.N.1.3.2 Outdoor Storage. Minimize exposure of recyclables to precipitation and runoff. Use good housekeeping measures to prevent accumulation of particulate matter and fluids, particularly in high traffic areas. Following are some control measure options (a) provide totally enclosed drop-off containers for the public; (b) install a sump and

pump with each container pit and treat or discharge collected fluids to a sanitary sewer system; (c) provide dikes and curbs for secondary containment (e.g., around bales of recyclable waste paper); (d) divert surface water runoff away from outside material storage areas; (e) provide covers over containment bins, dumpsters, and roll-off boxes; and (f) store the equivalent of one day's volume of recyclable material indoors.

E.N.1.3.3 Indoor Storage and Material Processing. Minimize the release of pollutants from indoor storage and processing areas. Following are some control measure options (a) schedule routine good housekeeping measures for all storage and processing areas, (b) prohibit tipping floor washwater from draining to the storm sewer system, and (c) provide employee training on pollution prevention practices.

E.N.1.3.4 Vehicle and Equipment Maintenance. Following are some control measure options for areas where vehicle and equipment maintenance occur outdoors (a) prohibit vehicle and equipment washwater from discharging to the storm sewer system, (b) minimize or eliminate outdoor maintenance areas whenever possible, (c) establish spill prevention and clean-up procedures in fueling areas, (d) avoid topping off fuel tanks, (e) divert runoff from fueling areas, (f) store lubricants and hydraulic fluids indoors, and (g) provide employee training on proper handling and storage of hydraulic fluids and lubricants.

E.N.2 Additional SWPCP Requirements.

E.N.2.1 Drainage Area Site Map. Document in your SWPCP the locations of any of the following activities or sources that may be exposed to precipitation or surface runoff: scrap and waste material storage, outdoor scrap and waste processing equipment; and containment areas for turnings exposed to cutting fluids.

E.N.2.2 Maintenance Schedules/Procedures for Collection, Handling, and Disposal or Recycling of Residual Fluids at Scrap and Waste Recycling Facilities. If you are subject to Schedule E.N.3.1.3, your SWPCP must identify any applicable maintenance schedule and the procedures to collect, handle, and dispose of or recycle residual fluids.

E.N.3 Sector-Specific Benchmarks.

Table E.N-1 identifies benchmarks that apply to the specific subsectors of Sector N. These benchmarks apply to both your primary industrial activity and any co-located industrial activities.

Table E.N-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector N1. Scrap Recycling and Waste Recycling Facilities except Source-Separated Recycling (SIC 5093)	Chemical Oxygen Demand (COD)	120 mg/L
	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L

SCHEDULE F NPDES GENERAL CONDITIONS

SECTION A. STANDARD CONDITIONS

1. Duty to Comply

The permit registrant must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of Oregon Revised Statutes (ORS) 468B.025, the Clean Water Act and 40 Code of Federal Regulations (CFR) §122.41(a), and is grounds for enforcement action; for permit termination, revocation and/or reissuance, or modification; or for denial of a permit renewal application.

2. Penalties for Water Pollution and Permit Condition Violations

ORS 468.140 allows the Director to impose civil penalties up to \$25,000 per day for violation of a term, condition, or requirement of a permit. ORS 468.943 creates the criminal offense of unlawful water pollution in the second degree, for the criminally negligent violation of ORS chapter 468B or any rule, standard, license, permit or order adopted or issued under ORS chapter 468B. Unlawful water pollution in the second degree is punishable by a fine of up to \$25,000 or imprisonment for not more than one year, or both. In addition, OAR 468.946, creates the offense of unlawful water pollution of the first degree, which is a Class B felony.

3. Duty to Mitigate

The permit registrant must take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit. In addition, upon request of the department, the permit registrant must correct any adverse impact on the environment or human health resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.

4. Duty to Reapply

If the permit registrant wishes to continue an activity regulated by this permit after the expiration date of this permit, the permit registrant must apply for and have the permit registration renewed. The application must be submitted at least 180 days before the expiration date of this permit. The department may grant written permission to submit an application less than 180 days in advance but no later than the permit expiration date.

5. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

- a. Violation of any term, condition, or requirement of this permit, a rule, or a statute
- b. Failure to pay fees when they are due
- c. Obtaining this permit by misrepresentation or failure to disclose fully all material facts
- d. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge
- e. The permit registrant is identified as a Designated Management Agency or allocated a wasteload under a Total Maximum Daily Load (TMDL)
- f. New information or regulations
- g. Modification of compliance schedules
- h. Requirements of permit re-opener conditions
- i. Correction of technical mistakes made in determining permit conditions
- j. Determination that the permitted activity endangers human health or the environment
- k. Other causes as specified in 40 CFR §§122.62, 122.64, and 124.5

DEQ will give permit registrant notice of the right to a contested case hearing in the event DEQ issues a Notice of Revocation, Suspension or Refusal to Renew the permit.

The filing of a request by the permit registrant for a permit modification, revocation or reissuance, termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

6. Toxic Pollutants

The permit registrant must comply with any applicable effluent standards or prohibitions established under Oregon Administrative Rules (OAR) 340-041-0033 for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

7. **Property Rights**

The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege, nor does it authorize any injury to persons of property or invasion of any other private rights, nor any infringement of federal, tribal, state, or local laws or regulations.

8. **Permit References**

Except for effluent standards or prohibitions established under Section 307(a) of the Clean Water Act and OAR 340-041-0033 for toxic pollutants, all rules and statutes referred to in this permit are those in effect on the date this permit is issued.

9. **Permit Fees**

The permit registrant must pay the fees required by OAR 340-045-0070 to 0075.

The permit registrant must pay annual compliance fees by the last day of the month prior to when the permit was issued. For example, if the permit was issued or last renewed in April, the due date will be March 31st. If the payment of annual fees is 30 days or more past due, the permit registrant must pay 9% interest per annum on the unpaid balance. Interest will accrue until the fees are paid in full. If DEQ does not receive payment of annual fees when they are due, DEQ will refer the account to the Department of Revenue or to a private collection agency for collection.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. **Proper Operation and Maintenance**

The permit registrant must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permit registrant to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls, and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permit registrant only when the operation is necessary to achieve compliance with the conditions of the permit.

2. **Duty to Halt or Reduce Activity**

For industrial or commercial facilities, upon reduction, loss, or failure of the treatment facility, the permit registrant must, to the extent necessary to maintain compliance with its permit, control production or all discharges or both until the facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power of the treatment facility fails or is reduced or lost. It is not a defense for a permit registrant in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

3. **Bypass of Treatment Facilities**

a. **Definitions**

- (1) "Bypass" means intentional diversion of waste streams from any portion of the treatment facility. The term "bypass" does not include nonuse of singular or multiple units or processes of a treatment works when the nonuse is insignificant to the quality or quantity of the effluent produced by the treatment works. The term "bypass" does not apply if the diversion does not cause effluent limitations to be exceeded, provided the diversion is to allow essential maintenance to assure efficient operation.
- (2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities or treatment processes which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. **Prohibition of bypass.**

- (1) Bypass is prohibited unless:
 - (a) Bypass was necessary to prevent loss of life, personal injury, or severe property damage;
 - (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and
 - (c) The permit registrant submitted notices and requests as required under General Condition B.3.c.
- (2) The Director may approve an anticipated bypass, after considering its adverse effects and any alternatives to bypassing, when the Director determines that it will meet the three conditions listed above in General Condition B.3.b.(1).

- c. Notice and request for bypass.
 - (1) Anticipated bypass. If the permit registrant knows in advance of the need for a bypass, it must submit prior written notice, if possible at least ten days before the date of the bypass.
 - (2) Unanticipated bypass. The permit registrant must submit notice of an unanticipated bypass as required in General Condition D.5.

4. Upset

- a. Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permit registrant. An upset does not include noncompliance to the extent caused by operation error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.
- b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of General Condition B.4.c are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- c. Conditions necessary for a demonstration of upset. A permit registrant who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - (1) An upset occurred and that the permit registrant can identify the causes(s) of the upset;
 - (2) The permitted facility was at the time being properly operated;
 - (3) The permit registrant submitted notice of the upset as required in General Condition D.5, hereof (24-hour notice); and
 - (4) The permit registrant complied with any remedial measures required under General Condition A.3 hereof.
- d. Burden of proof. In any enforcement proceeding the permit registrant seeking to establish the occurrence of an upset has the burden of proof.

5. Treatment of Single Operational Event

For purposes of this permit, A Single Operational Event which leads to simultaneous violations of more than one pollutant parameter must be treated as a single violation. A single operational event is an exceptional incident which causes simultaneous, unintentional, unknowing (not the result of a knowing act or omission), temporary noncompliance with more than one Clean Water Act effluent discharge pollutant parameter. A single operational event does not include Clean Water Act violations involving discharge without a NPDES permit or noncompliance to the extent caused by improperly designed or inadequate treatment facilities. Each day of a single operational event is a violation.

6. Overflows from Wastewater Conveyance Systems and Associated Pump Stations

- a. Definitions
 - (1) "Overflow" means the diversion and discharge of waste streams from any portion of the wastewater conveyance system including pump stations, through a designed overflow device or structure, other than discharges to the wastewater treatment facility.
 - (2) "Severe property damage" means substantial physical damage to property, damage to the conveyance system or pump station which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of an overflow.
 - (3) "Uncontrolled overflow" means the diversion of waste streams other than through a designed overflow device or structure, for example to overflowing manholes or overflowing into residences, commercial establishments, or industries that may be connected to a conveyance system.
- b. Prohibition of overflows. Overflows are prohibited unless:
 - (1) Overflows were unavoidable to prevent an uncontrolled overflow, loss of life, personal injury, or severe property damage;
 - (2) There were no feasible alternatives to the overflows, such as the use of auxiliary pumping or conveyance systems, or maximization of conveyance system storage; and
 - (3) The overflows are the result of an upset as defined in General Condition B.4. and meeting all requirements of this condition.
- c. Uncontrolled overflows are prohibited where wastewater is likely to escape or be carried into the waters of the State by any means.

- d. Reporting required. Unless otherwise specified in writing by the Department, all overflows and uncontrolled overflows must be reported orally to the Department within 24 hours from the time the permit registrant becomes aware of the overflow. Reporting procedures are described in more detail in General Condition D.5.

7. Public Notification of Effluent Violation or Overflow

If effluent limitations specified in this permit are exceeded or an overflow occurs, upon request by the Department, the permit registrant must take such steps as are necessary to alert the public about the extent and nature of the discharge. Such steps may include, but are not limited to, posting of the river at access points and other places, news releases, and paid announcements on radio and television.

8. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters must be disposed of in such a manner as to prevent any pollutant from such materials from entering public waters, causing nuisance conditions, or creating a public health hazard.

SECTION C. MONITORING AND RECORDS

1. Representative Sampling

Sampling and measurements taken as required herein must be representative of the volume and nature of the monitored discharge. All samples must be taken at the monitoring points specified in this permit and must be taken, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points must not be changed without notification to and the approval of the Director.

2. Flow Measurements

Appropriate flow measurement devices and methods consistent with accepted scientific practices must be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices must be installed, calibrated and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected must be capable of measuring flows with a maximum deviation of less than ± 10 percent from true discharge rates throughout the range of expected discharge volumes.

3. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under 40 CFR §136, unless other test procedures have been specified in this permit.

4. Penalties of Tampering

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit must, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years, or by both. If a conviction of a person is for a violation committed after a first conviction of such person, punishment is a fine not more than \$20,000 per day of violation, or by imprisonment of not more than four years or both.

5. Reporting of Monitoring Results

Monitoring results must be summarized each month on a Discharge Monitoring Report form approved by the Department. The reports must be submitted monthly and are to be mailed, delivered or otherwise transmitted by the 15th day of the following month unless specifically approved otherwise in Schedule B of this permit.

6. Additional Monitoring by the Permit registrant

If the permit registrant monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR §136 or as specified in this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report. Such increased frequency must also be indicated. For a pollutant parameter that may be sampled more than once per day (e.g., Total Chlorine Residual), only the average daily value must be recorded unless otherwise specified in this permit.

7. Averaging of Measurements

Calculations for all limitations which require averaging of measurements must utilize an arithmetic mean, except for bacteria which must be averaged as specified in this permit.

8. Retention of Records

Except for records of monitoring information required by this permit related to the permit registrant's sewage sludge use and disposal activities, which must be retained for a period of at least five years (or longer as required by 40 CFR §503), the permit registrant must retain records of all monitoring information, including all calibration and maintenance records of all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

9. Records Contents

Records of monitoring information must include:

- a. The date, exact place, time and methods of sampling or measurements;
- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques or methods used; and
- f. The results of such analyses.

10. Inspection and Entry

The permit registrant must allow the Director, or an authorized representative upon the presentation of credentials to:

- a. Enter upon the permit registrant's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit, and
- d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by state law, any substances or parameters at any location.

SECTION D. REPORTING REQUIREMENTS

1. Planned Changes

The permit registrant must comply with Oregon Administrative Rules (OAR) 340, Division 052, "Review of Plans and Specifications". Except where exempted under OAR 340-052, no construction, installation, or modification involving disposal systems, treatment works, sewerage systems, or common sewers must be commenced until the plans and specifications are submitted to and approved by the Department. The permit registrant must give notice to the Department as soon as possible of any planned physical alternations or additions to the permitted facility.

2. Anticipated Noncompliance

The permit registrant must give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. Transfers

This permit may be transferred to a new permit registrant provided the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of the permit and the rules of the Commission. No permit must be transferred to a third party without prior written approval from the Director. The permit registrant must notify the Department when a transfer of property interest takes place.

4. Compliance Schedule

Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date. Any reports of noncompliance must include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements.

5. Twenty-Four Hour Reporting

The permit registrant must report any noncompliance which may endanger health or the environment. Any information must be provided orally (by telephone) within 24 hours, unless otherwise specified in this permit, from the time the permit registrant becomes aware of the circumstances. During normal business hours, the Department's Regional office must be called. Outside of normal business hours, the Department must be contacted at 1-800-452-0311 (Oregon Emergency Response System).

A written submission must also be provided within 5 days of the time the permit registrant becomes aware of the circumstances. If the permit registrant is establishing an affirmative defense of upset or bypass to any offense under ORS 468.922 to 468.946, and in which case if the original reporting notice was oral, delivered written notice must be made to the Department or other agency with regulatory jurisdiction within 4 (four) calendar days. The written submission must contain:

- a. A description of the noncompliance and its cause;
- b. The period of noncompliance, including exact dates and times;
- c. The estimated time noncompliance is expected to continue if it has not been corrected;
- d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and
- e. Public notification steps taken, pursuant to General Condition B.7.

The following must be included as information which must be reported within 24 hours under this paragraph:

- a. Any unanticipated bypass which exceeds any effluent limitation in this permit.
- b. Any upset which exceeds any effluent limitation in this permit.
- c. Violation of maximum daily discharge limitation for any of the pollutants listed by the Director in this permit.

The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

6. Other Noncompliance

The permit registrant must report all instances of noncompliance not reported under General Condition D.4 or D.5, at the time monitoring reports are submitted. The reports must contain:

- a. A description of the noncompliance and its cause;
- b. The period of noncompliance, including exact dates and times;
- c. The estimated time noncompliance is expected to continue if it has not been corrected; and
- d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

7. Duty to Provide Information

The permit registrant must furnish to the Department, within a reasonable time, any information which the Department may request to determine compliance with this permit. The permit registrant must also furnish to the Department, upon request, copies of records required to be kept by this permit.

Other Information: When the permit registrant becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Department, it must promptly submit such facts or information.

8. Signatory Requirements

All applications, reports or information submitted to the Department must be signed and certified in accordance with 40 CFR §122.22.

9. Falsification of Reports

Under ORS 468.953, any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, is subject to a Class C felony punishable by a fine not to exceed \$100,000 per violation and up to 5 years in prison.

SECTION E. DEFINITIONS

1. BOD means five-day biochemical oxygen demand.
2. TSS means total suspended solids.
3. mg/l means milligrams per liter.
4. kg means kilograms.
5. m³/d means cubic meters per day.

6. MGD means million gallons per day.
7. Composite sample means a sample formed by collecting and mixing discrete samples taken periodically and based on time or flow.
8. FC means fecal coliform bacteria.
9. Technology based permit effluent limitations means technology-based treatment requirements as defined in 40 CFR §125.3, and concentration and mass load effluent limitations that are based on minimum design criteria specified in OAR 340-041.
10. CBOD means five day carbonaceous biochemical oxygen demand.
11. Grab sample means an individual discrete sample collected over a period of time not to exceed 15 minutes.
12. Quarter means January through March, April through June, July through September, or October through December.
13. Month means calendar month.
14. Week means a calendar week of Sunday through Saturday.
15. Total residual chlorine means combined chlorine forms plus free residual chlorine.
16. The term "bacteria" includes but is not limited to fecal coliform bacteria, total coliform bacteria, and E. coli bacteria.
17. POTW means a publicly owned treatment works.

Appendix 2

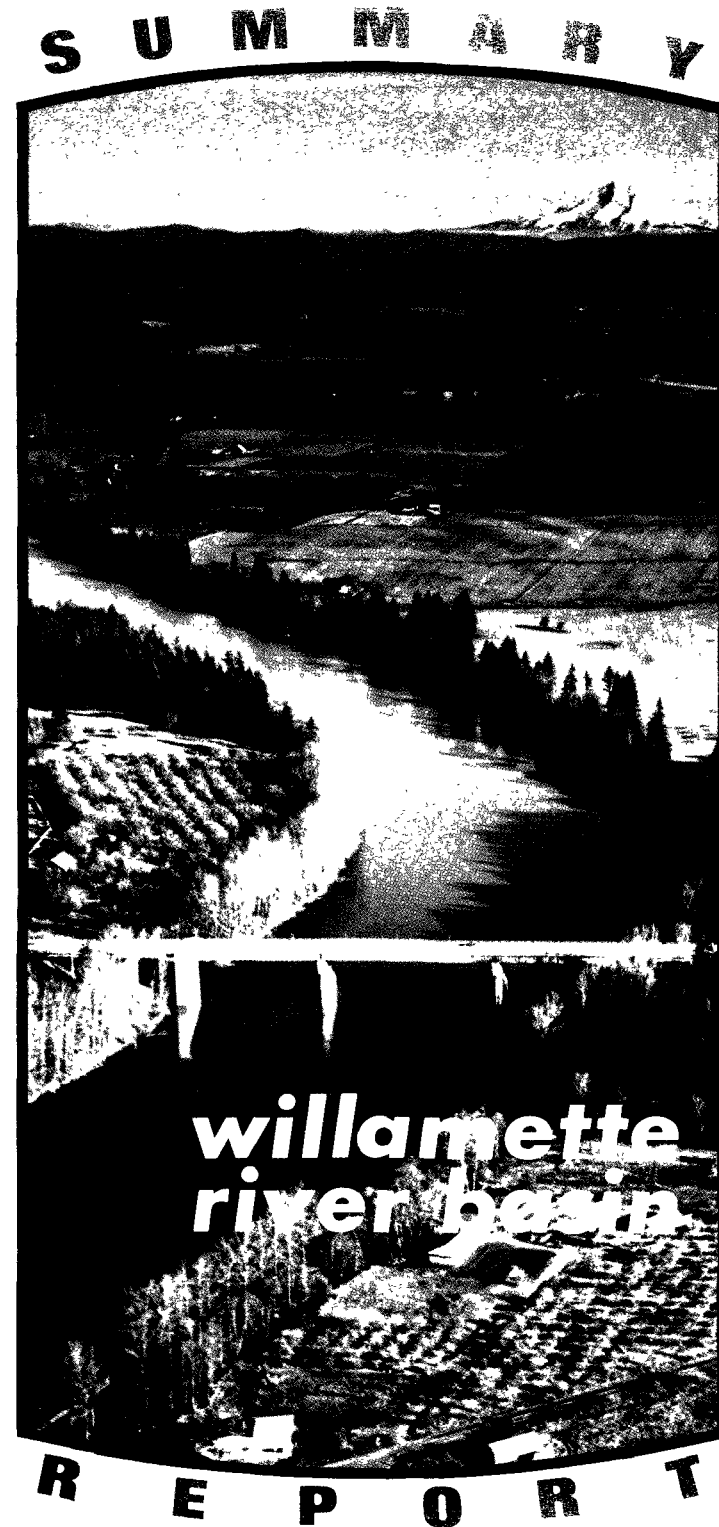
Other Local Regulations

Recordkeeping Note

The Willamette River Basin has additional stormwater regulations that may be applicable to the facility. Copies of those regulations have been inserted into this Appendix.

WATER QUALITY CONTROL AND MANAGEMENT

**A COMPREHENSIVE POLLUTION CONTROL PROGRAM DEVELOPED
BY THE FEDERAL WATER POLLUTION CONTROL ADMINISTRATION**



SUMMARY OF:

WATER QUALTY CONTROL AND MANAGEMENT



DEPARTMENT OF THE INTERIOR
FEDERAL WATER POLLUTION CONTROL ADMINISTRATION
NORTHWEST REGION, PORTLAND, OREGON

JANUARY 1967

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WILLAMETTE RIVER

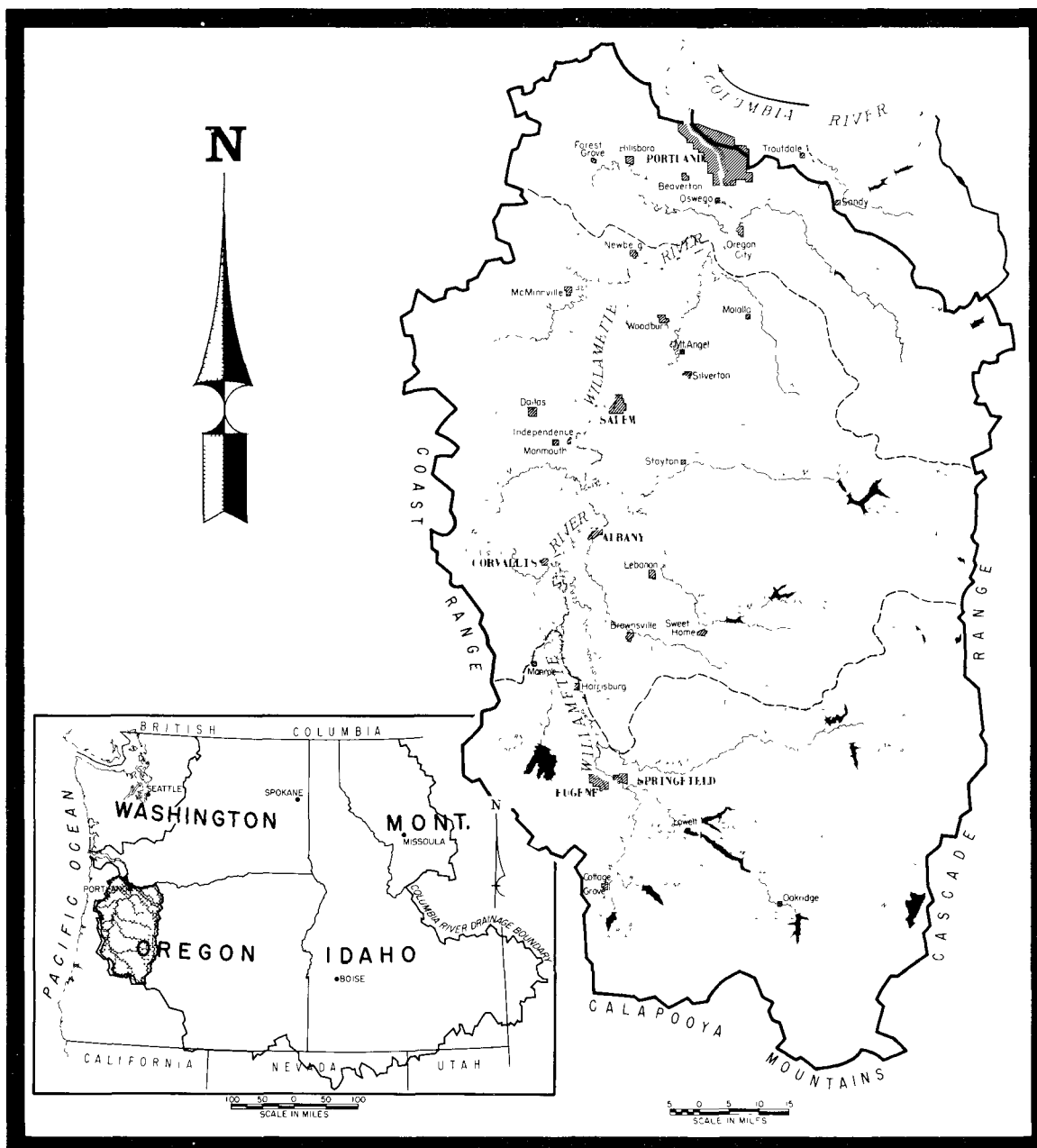
JAMES M. QUIGLEY, *Commissioner*
Federal Water Pollution Control Administration
U.S. Department of the Interior

Each summer the Willamette River becomes polluted. This splendid river, whose watershed supports two-thirds of Oregon's population and provides an equal proportion of its industrial output, suffers recurrently from massive outpourings of untreated industrial wastes. The effects of this pollution have been severe. The Willamette has largely been rejected as a source of water supply, and communities along its banks have had to develop other, and more costly, sources. Recreation has been curtailed, with many parks posted against swimming and the whole river below the city of Eugene exceeding Pacific Northwest Pollution Control Council bacterial objectives for water-contact recreation. Fish production has declined, as the natural habitat for trout has shrunk, and as passage conditions and spawning areas for that large portion of the Pacific salmon run that is based upon the Willamette have deteriorated with the persistence of pollution.

These conditions have existed for more than three decades. Gradual progress has been made in pollution abatement as a result of institution of waste treatment and summer flow augmentation from Federal storage reservoirs; but at the same time the magnitude of pollution sources has advanced. Industrial expansion, population growth, and urbanization have all acted to increase wastes and to offset much of the progress that has occurred.

In 1961 the Water Supply and Pollution Control Division of the Public Health Service began a comprehensive study of water quality in the Columbia River Basin. The study, continued under the Federal Water Pollution Control Administration, has included considerable emphasis on the Willamette Basin, since it contains the clearest and most significant instances of water pollution found in the Columbia Basin. This is a summary of the Willamette River Basin report which contains a detailed analysis of the nature and extent of pollution, its cause, what may be done to abate it and prevent its recurrence, and what it will cost to control it.

The course of action recommended in that report is based upon the decision of the people of Oregon—a decision manifested by the repeated pronouncements of its public officials and by legislative enactments going back to the Act of 1938 creating a state agency with responsibility for control of water pollution—that the waters of the Willamette system are to be fit habitats for salmonid fish, suitable sources of recreation, and usable water supplies. These are demanding goals, in terms of water quality, but no lesser goals have ever been publicly advanced. Unfortunately the public and private actions needed to fulfill these goals have not always been forthcoming. This report sets forth a plan for such actions. Whether this plan will achieve its purpose is also a decision which rests largely with the people of Oregon.



The Federal Water Pollution Control Act (33 U S. C. 466 et seq.) contains among its provisions a direction to the Secretary of the Interior to develop comprehensive programs for controlling pollution of interstate waters and their tributaries. This document is an interpretive summary of a report presenting such a program for Oregon's Willamette River.

The major report, *Water Quality Control and Management. Willamette River Basin*, presents the results of a painstaking study of the water quality of the Willamette River system, the uses of the river system, the factors that affect water quality, the probable nature of the economic development of the watershed and its impact on water quality, and the nature of measures that must be taken both to abate pollution in the river system and to prevent recurrence of pollution. While the report was prepared by the Federal Water Pollution Control Administration, which bore the major responsibility for developing the study, a number of Federal and Oregon State and local agencies provided important assistance in collecting and analyzing data. In particular, the Oregon State Sanitary Authority accepted a very large role in developing both information and concepts.

This summary report is focused on the presentation of the principal findings of the study as they relate to requirements for action to control pollution. It emphasizes that pollution does exist in the Willamette River system, that pulp and paper mills that have been subject to less stringent waste control requirements than municipalities and other sources of waste are the major causes of pollution, that pollution abatement will require immediate improvements in the level of waste reduction achieved in the Willamette River system, and that the continuing control of pollution will impose demands for action well into the future upon the people and industries of the Willamette River Basin, as well as upon the State and Federal agencies that serve them

POLLUTION ABATEMENT

IMMEDIATE POLLUTION ABATEMENT

1. The primary need for abatement of existing water pollution in the Willamette River Basin should be met by installation and operation of waste reduction facilities for pulping and papermaking that provide efficiencies equal to those of conventional secondary waste treatment essential removal of floating and settleable solids and reduction of at least 85% of biochemical oxygen demand. Such facilities should be made available within the next five years at the plants operated by Publishers Paper Company at Oregon City and Newberg, Crown Zellerbach Corporation at West Linn and Lebanon, and Boise Cascade Corporation at Salem.
2. Effective secondary treatment should be installed within the next five years by those communities which do not provide or are not presently constructing such plants; and waste treatment facilities of communities operating plants that are outmoded or overloaded should be brought up to generally accepted standards for secondary treatment of waste. Communities that require secondary treatment are Albany, Cottage Grove, Harrisburg, Junction City, Monroe, and Oakridge. In the category of communities operating inadequate plants are Dallas, Mount Angel, McMinnville, Sweet Home, and the Fanno Creek Sanitary District.
3. The State of Oregon should proceed to adopt standards, as required by the Federal Water Pollution Control Act, for that portion of the Willamette River that is interstate water in that it is subject to tidal influences. Oregon standards for the major portion of the river that is intrastate should be compatible with the interstate standards, in the interest of protecting water uses and developing a firm and consistent pollution control program. Standards should clearly recognize the importance of the river system as a spawning area for anadromous salmonid fish and support the expansion of recreational and water supply capabilities of the basin's waters.

LONG TERM POLLUTION CONTROL

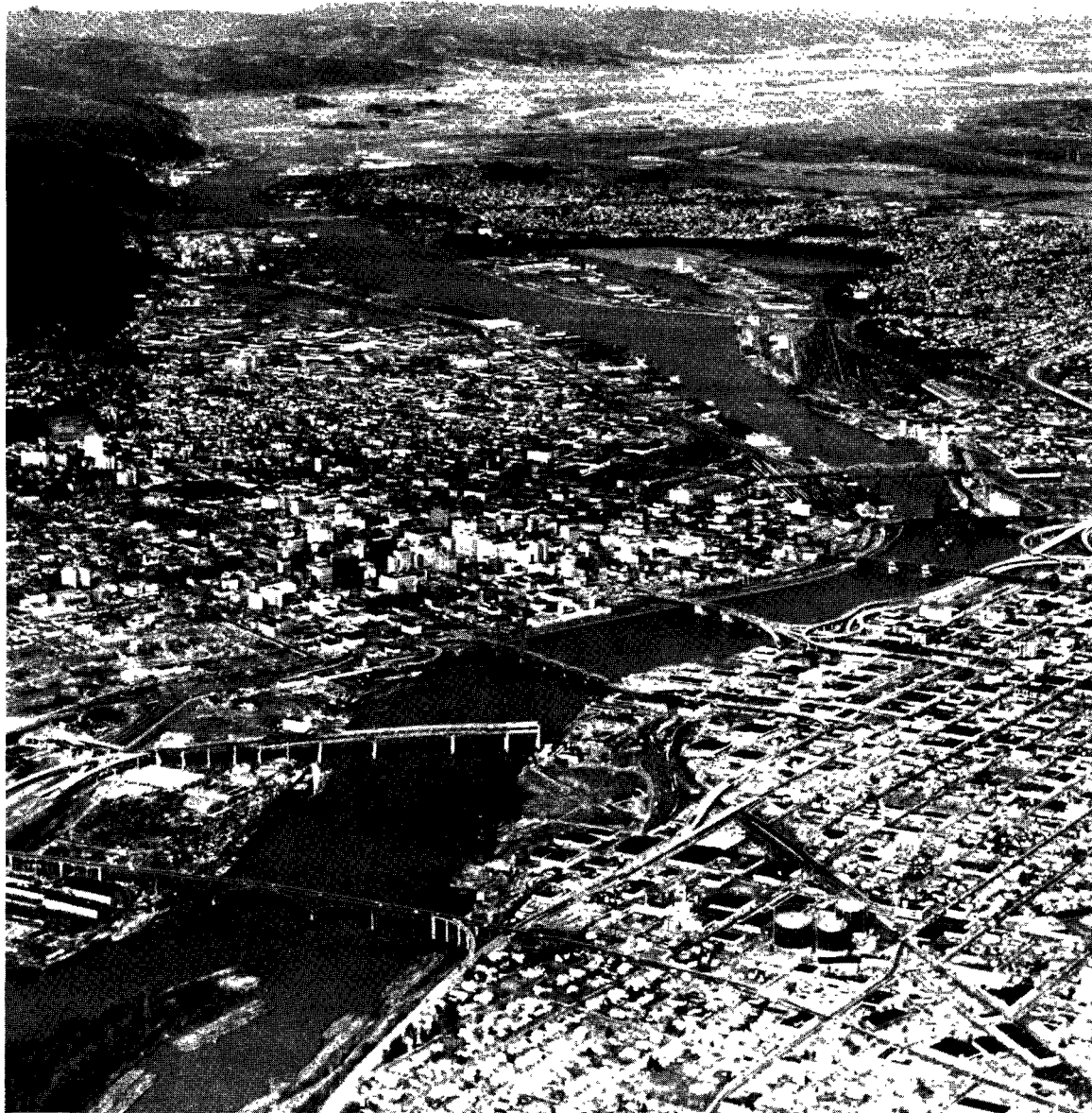
1. The State of Oregon should encourage and provide assistance in development of institutional arrangements that bring appropriate communities, industries, and metropolitan areas together for the purpose of planning and financing pollution control measures within the framework provided by drainage areas.
2. Reallocation of functions of the Federal reservoir system in the Willamette River Basin, to be considered in 1970 upon completion of a joint State of Oregon-Federal agencies study of water and related land resources of the basin, should recognize the overlapping benefits to water quality, fishery, and recreation that are obtainable with maintenance of summer base flows of at least 7,500 cubic feet per second through Portland harbor, 260 cubic feet per second in the lower Tualatin River, and 100 cubic feet per second in the South Santiam River below Lebanon.
3. The State of Oregon should establish limits for waste loads in intensively used watersheds. Such limits should reflect characteristics of wastes, minimum streamflow probabilities, and quality of waste control techniques available within the watershed.
4. Data gathering and monitoring activities of the Oregon State Sanitary Authority and of the Federal Water Pollution Control Administration should be coordinated and expanded to maintain intimate knowledge of waste loadings, treatment plant efficiencies, streamflows, and reservoir operations, in order that such information may be utilized in mathematical simulations of the river system as planning tools and instruments of day to day water quality management.
5. Programs of Federal resource management agencies operating in the Willamette River Basin should be periodically reviewed by the Federal Water Pollution Control Administration for possible impacts on water quality, with the Federal Water Pollution Control Administration and the several agencies jointly developing and monitoring effects of procedures to avoid adverse impacts, and coordinating such programs with Oregon State and local watershed organizations' pollution control plans.

I. POLLUTION PROBLEMS

One of the most serious conditions of water pollution in the Pacific Northwest occurs in the lower reaches of Oregon's Willamette River. Marked pollution also exists in two major Willamette tributaries, the South Santiam River and the Tualatin River. In each case pollution's effects on water uses are severe and persistent, recurring with varying intensity each summer.

Of the three instances of water pollution, the most significant, in terms of volume of water affected and restriction of water uses, is that of the lower Willamette River. During a portion of each summer dissolved oxygen concentrations fall below the level which can support indigenous species of game fish in Portland harbor—the reach of the river that extends from a point below the confluence with the Clackamas River to the mouth. The same area also exhibits year-round growths of slimelike bacteria (*Sphaerotilus*), bottom sludges, and floating sludge rafts. The conditions are due in large measure to the discharge of untreated wastes of pulp and paper mills operated by Crown Zellerbach Corporation at West Linn and by Publishers Paper Company at Oregon City and Newberg.

Pollution of the South Santiam River is similar to that of the lower Willamette in its manifestation and its causes. Waste discharges of the small Crown Zellerbach pulp mill at Lebanon cause slime growths, sludges, and dissolved oxygen deficiencies during the period of low summer flow. The Lebanon mill treats its wastes by removing



Portland, a city of bridges. The Willamette River passes through the heart of Oregon's largest city, and a substantial portion of the metropolitan area's inhabitants cross the river in the course of their daily tasks.

the major portion of strong pulping wastes Treatment is, however, inadequate to sustain desired water quality.

Pollution of the Tualatin River is caused by the heavy degree of development that is imposed on the limited resources of the watershed. The normal low summer streamflows are further reduced by irrigation withdrawals, and the wastes of a number of communities and industries are discharged into the river. The Tualatin Basin supports a principal suburban area of the city of Portland; and the density of population results in a level of waste production that periodically exceeds the assimilative capabilities of the stream, even after treatment removes more than 90 percent of oxygen-consuming wastes. Urban and agricultural runoff contribute additional nutrients and organic wastes, adding to intense algal activity which compounds the problem.

II. POLLUTION DAMAGES

Extremely high water quality is required by uses that are made of the waters of the Willamette River system. Municipal and industrial water supply, production of salmonid fish (salmon and trout), and recreation constitute prime uses of the Willamette's waters; and each can be curtailed, made more costly, or eliminated entirely by the existence of pollution. All of these uses are presently restricted in some measure by pollution. Bacterial contamination limits the sources for domestic, municipal, and food processing water supplies. Numbers of available recreation areas have been con-

stricted by the presence of excessive bacterial concentrations. Interference with sport fishing has resulted from pollution-caused limitation of fish environments, and by the nuisance to both fishing and boating imposed by *Sphaerotilus*. Fish production is impeded by dissolved oxygen deficiencies and by sometimes high temperatures.

It is the damage to the fishery that is most costly. Water supplies can be treated prior to use, and alternative recreational sources are available—though both substitutions involve increases in user costs. There is no alternative source of salmon and trout. Where production of either is curtailed, it represents a diminution of an intensively used total supply. Since all migratory salmon utilizing the Willamette system must pass through the polluted lower reaches of the Willamette twice during their life cycle, the condition of Portland harbor represents a critical limitation on the productive capacity of the entire river system

Dissolved oxygen requirements for passage of salmon are not nearly so high as for spawning, which requires near saturation of dissolved oxygen, or rearing which requires a concentration of seven milligrams per liter. Salmon passage may be readily accomplished with a dissolved oxygen concentration of five milligrams per liter. Unfortunately, summer dissolved oxygen concentrations in Portland harbor often fall below three milligrams per liter. While no upstream migration of salmon presently occurs during the summer, untimely low flows and consequent oxygen deficiency some-

times result in an "oxygen block" that prevents the latter stages of the spring migration upstream, or delays the start of the fall migration. In either situation, the spawning population is reduced by predation and other causes, with an adverse effect on production. Effect of the summer dissolved oxygen deficiency is more serious in the case of downstream migration of juvenile fish. The downstream migration goes on throughout the year; and a high mortality is believed to



Characteristically muddied by the swift flows and surface runoff caused by heavy winter rains, the entering waters of the Willamette contrast sharply with the receiving Columbia

occur among downstream migrants as a result of pollution in the Portland harbor.

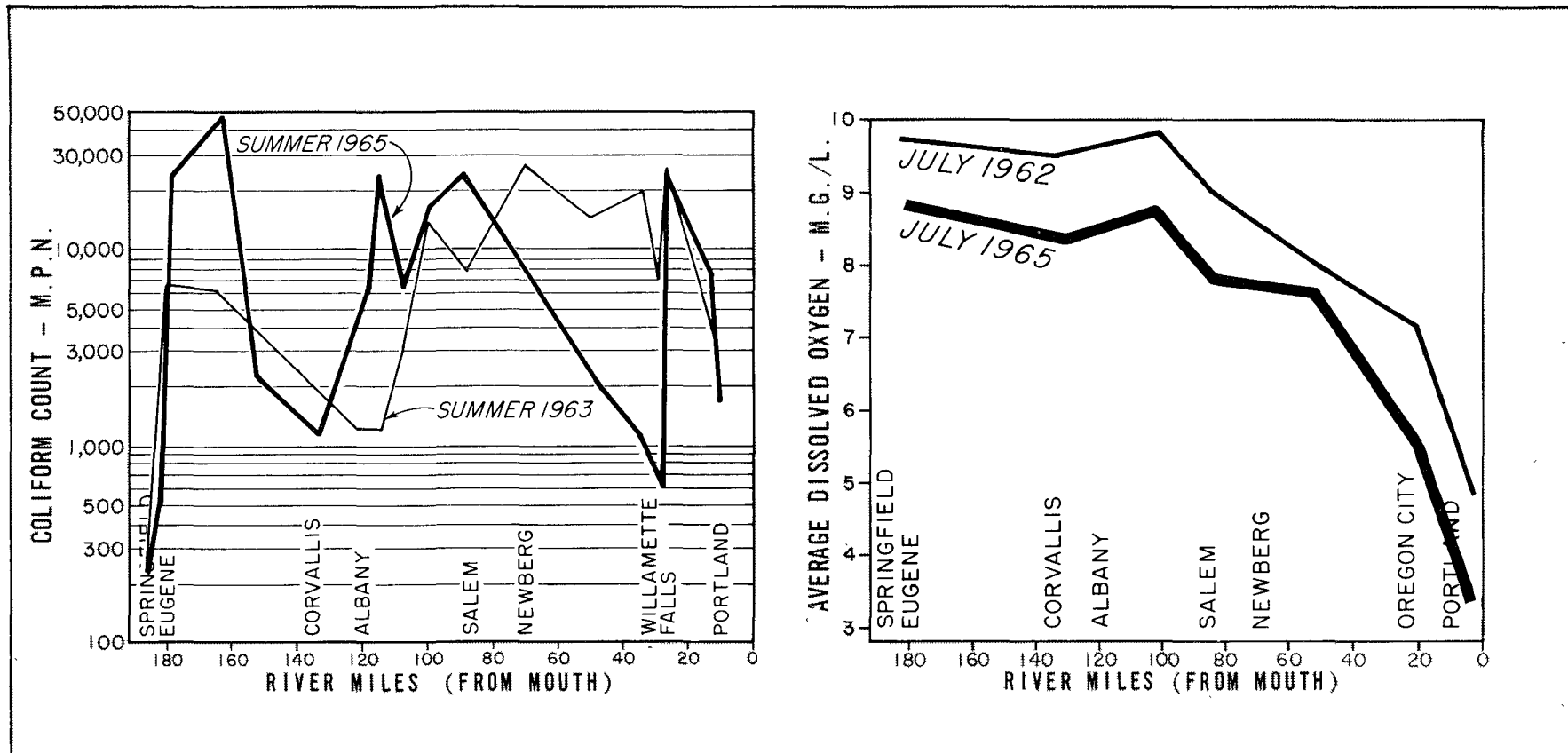
III. DIFFICULTIES OF ABATEMENT

While the State of Oregon has recognized the fish production, water supply, and recreational uses of the Willamette River system in its classification of streams, and has adopted a program of pollution abatement designed to protect those functions of the

watershed, its program has not been adequate to restore necessary quality to the river. The Oregon pollution control program has been most effective in reducing bacterial concentrations, by encouraging the communities of the basin to develop waste treatment. It has not dealt successfully with problems of summer oxygen depletion, sludges, and slime growths. Pollution remedies have met with limited success because of two weaknesses: lack of control of pulp

mill waste discharges, and lack of dependable summer streamflow.

There are seven pulp mills in the Willamette system. Six discharge their wastes directly into the Willamette River, and one discharges wastes into the South Santiam River. With two exceptions, these mills use the sulfite pulping process and do not recover cooking chemicals by condensing and burning wastes, as do plants utilizing the more modern sulfate, or kraft, process.



The bacteriological quality of most reaches of the Willamette River is unsatisfactory for water-contact recreation. Note, however, that concentrations have been lowered since 1962 through the completion of secondary waste treatment facilities along the main stem.

The deterioration of dissolved oxygen concentrations of the Willamette that occurs in the slow-moving lower river is indicated by this profile. The depression becomes critical when, as in the summer of 1965, flow is reduced.

Since something over half of the wood inputs in pulping are, by the nature of the process, discarded as waste, enormous quantities of organic waste materials are generated in the production of pulp. Of some 6.2 million population equivalents of oxygen-demanding wastes produced in the Willamette River Basin, 70 percent—about 4.5 million population equivalents—occurs from pulp and paper production. And of the 4.9 million population equivalents of wastes that enter the Willamette River system after application of waste control measures, over 90 percent is from pulping and papermaking.

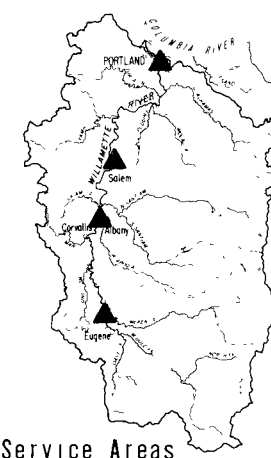
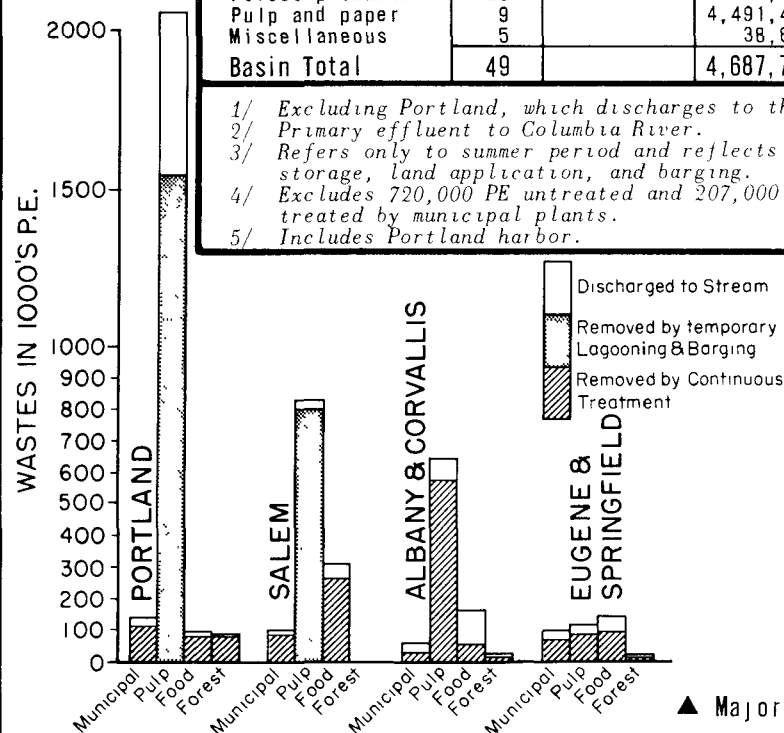
The State of Oregon has required a high level of waste treatment for municipalities of the basin; and, for the most part, they have responded to the State's demands. Of 91 communities in the Willamette River watershed, 74 provide secondary waste treatment or its equivalent, seven do not collect wastes, only one does not treat its wastes, and nine—including the largest city, Portland—have primary treatment. Food processing plants, as a group, provide a high level of waste reduction, in large part through use of joint municipal-industrial treatment facilities. Miscellaneous manufacturing plants do not match the waste treatment performance of municipalities or food processors, but neither do they constitute significant waste sources.

In distinction to other waste producers, the pulp and paper industry, the major source of wastes, has largely resisted the State of Oregon's efforts to enforce effective pollution abatement procedures. Only three of the seven mills achieve a reduction of their wastes discharges. The huge Weyer-

MUNICIPAL AND INDUSTRIAL WASTES WILLAMETTE RIVER BASIN

	Number of Plants	Population Served	Population Equivalents		Removal Efficiency %
			Untreated	Discharged	
PRESENT MUNICIPAL WASTE TREATMENT:					
Secondary	66	323,125	1,026,720	229,550	78
Primary ^{1/}	8	36,350	140,950	96,880	32
Lagoon	8	5,390	5,410	940	83
Other	8	1,000	350	350	0
Subtotal	90	366,715	1,174,930	328,450	72
Portland (primary)	1	370,000	385,000	2/	
Basin Total	91	736,715	1,559,930	328,450	79
PRESENT INDUSTRIAL WASTE TREATMENT:					
Food products	13		134,550	4,100 ^{4/}	97
Forest products	20		22,950	9,690	58
Pulp and paper	9		4,491,400	1,074,060	74 ^{3/}
Miscellaneous	5		38,850 ^{5/}	29,090 ^{5/}	7
Basin Total	49		4,687,750	1,116,910	75

- 1/ Excluding Portland, which discharges to the Columbia River.
- 2/ Primary effluent to Columbia River.
- 3/ Refers only to summer period and reflects removal by lagoon storage, land application, and barging.
- 4/ Excludes 720,000 PE untreated and 207,000 discharged wastes treated by municipal plants.
- 5/ Includes Portland harbor.



▲ Major Service Areas

Waste production is concentrated in four areas. With the exception of the pulp and paper industry, which relies partly on storage or transportation of wastes, a high level of waste reduction is achieved by most waste sources.

Four Willamette Basin pulp mills store their wastes in holding ponds--like this one at West Linn--during the summer. Untreated wastes are discharged when streamflow rises.



haeuser Company plant at Springfield is one of the most efficient mills in the industry in terms of the ratio of discharged wastes to production: a kraft mill that condenses and burns its strong pulping wastes, the plant also provides primary and secondary treatment of residual wastes, recycles process waters to reduce wastes, and utilizes summer spray irrigation to dispose of a portion of its waste stream during periods of low streamflow. The Western Kraft Corporation plant at Albany, another kraft mill, also provides primary treatment and some beneficial recycling of process waters. The Crown Zellerbach Corporation plant at Lebanon, a sulfite mill, evaporates and dries or burns strong pulping liquors during the summer.

No treatment is presently provided by sulfite pulp mills at Salem, Newberg, Oregon City, and West Linn. Until recently, the State of Oregon was willing to accept storage or transport of a portion of the concentrated wastes of these plants during the low flow period as a substitute for treatment, a

marked departure from its stringent policy toward other waste sources. The State initiated in 1965 the policy of requiring primary treatment by these mills, in order to reduce the organic solids that result in sludges and provide attachments and nutrients for *Sphaerotilus*. Primary treatment, however, effects little reduction in oxygen demand; and strong wastes will continue to be discharged to the river after primary treatment facilities have been installed.

The Willamette is a large river, and through most of the year it has a flow sufficient to absorb even the enormous waste discharges of pulp and paper production yet maintain acceptable dissolved oxygen levels. In summer, however, streamflow drops sharply, and with it the assimilative capacity of the river. A number of Federal reservoirs have been constructed in the upper basin since World War II. Releases from these, for purposes other than water quality control, have relieved the burden upon summer assimilative capacity by supplementing natural

streamflow. Without such releases severe nuisance conditions, and often complete oxygen depletion, would occur in Portland harbor each summer. Oregon's pollution control program is based to a large degree upon the operation of these reservoirs. Allowable waste discharges for pulp mills and treatment requirements for municipalities have been predicated upon maintenance of a navigation flow of 5,500 cubic feet per second at Salem.

Unfortunately, flows for pollution control are not specifically provided in the authorization of these reservoirs. Pollution control benefits have occurred incidentally to reservoir releases for navigation. And in the operation of the reservoirs, power generating schedules, flood control needs, and reservoir recreation have sometimes conflicted with pollution control requirements. Water needed in summer for water quality control can, in a dry year, be held in reservoirs in order to provide for fall power-generation.

IV. POLLUTION ABATEMENT REQUIREMENTS

Abatement of the pollution of the Willamette River in Portland harbor and of the South Santiam River depends primarily upon reducing the strength of wastes from pulp and paper plants. The paramount need for effective pollution control in the Willamette River Basin is a major reduction of the concentrated wastes of sulfite pulping—either through an evaporation and burning procedure similar to that of kraft pulping or through treatment that provides equivalent waste reduction. Primary treatment of wastes is also essential at the five pulp mills that do not provide it.

This level of treatment of pulping wastes is essential both for its direct impact in reducing pollution sources, and as a precondition for securing flow releases from Federal storage reservoirs. By the terms of the enabling legislation, allocation of storage in Federal reservoirs for the purpose of augmenting water quality may be made only where "adequate treatment or other methods of controlling wastes" is provided; and

Process	WASTE PER TON OF PRODUCT	
	Expectable w/Treatment lbs 800	Willamette Basin Mills, 1965 lbs 800
Sulfite pulping	50	550 (5 sulfite mills)
Sulfate pulping	10	11 (2 sulfate mills)
Groundwood pulping (bleached, refiner)	15	20 (2 groundwood mills)
Papermaking	5	14 (6 paper mills)

For a detailed breakdown of waste discharges at Willamette Basin pulp and paper mills and those that are possible with well-established treatment practices, indicates that most of the pulp and paper wastes presently reaching the river can be eliminated by water treatment.



the present level of pulp mill waste treatment is inadequate. Reallocation of storage in existing Willamette Basin reservoirs to provide dependable streamflows for water quality control is being considered by an interagency task force studying water and related land resources of the Willamette River Basin. It is unlikely, however, that storage for this purpose can be provided until all pulp mills—and the several communities that do not provide secondary treatment of their wastes—meet the waste treatment requirement.

V. CONTINUING POLLUTION CONTROL

Abatement of existing pollution will not insure maintenance of the water quality de-

sired in the Willamette River system. Pollution control needs will continue to occur; and a long term program that anticipates those needs offers opportunities for major economies in resource utilization. Such a program should avert the social costs of a recurrence of pollution, while foreseeing and scheduling pollution control requirements.

Waste treatment will remain the major element in pollution control in the Willamette River Basin. The area is expected to experience population and industrial growth at rates exceeding that of the rest of Oregon or of the United States as a whole. Providing treatment for wastes resulting from such expansion, as well as replacing existing waste treatment facilities as they become

Weyerhaeuser Company's pulp and paper plant at Springfield provides a high degree of waste reduction. Concentrated pulping liquors are condensed and burned for recovery of cooking chemicals (smokestacks at rear). Fibers and other solids are settled out in the two small ponds near the center of the picture. Residual wastes are held up to five days in the large lagoon, where aerators beat added oxygen into the waters to facilitate waste decomposition.



obsolete, will represent a continuing responsibility. Analysis of projected waste production and distribution indicates that for the most part secondary waste treatment will—with a slight increase in average treatment efficiency—adequately protect water quality. In the Tualatin River Basin, however, the magnitude of anticipated waste loads, even if recommended storage for quality control is provided, suggests that advanced waste treatment must be provided by municipalities and industries by the early 1970's. Similarly, pulp and paper mills, because they represent such significant waste sources, may be expected to provide something similar to conventional secondary waste treatment, in addition to primary treatment and reduction of concentrated pulping liquors.

Flow regulation for quality control is a needed supplement to waste treatment. Storage should be provided at a variety of sites, in order to meet the streamflow needs of tributaries as well as those of Portland harbor; and drafts on storage should be scheduled in a manner that makes most efficient use of water and of storage capacity.

In addition to needs that relate to physical facilities, effective, economic pollution control requires a number of institutional and procedural practices to effectuate continuing surveillance and control of water quality in the Willamette River system. The immediate need in this regard is the expansion and implementation of Oregon's stream standards for the Willamette River system in a

manner that clearly defines water quality required to serve appropriate functions of the river, stream reach by stream reach. Such standards are required by Federal law for that portion of the river which is defined to be interstate water, by reason of its exposure to tidal influence. Standards for the major part of the river system which is wholly intrastate should obviously be compatible with the interstate standard.

Adjudication of water rights to permit establishment (by the Oregon Water Resources Board) of inviolable base flows in critical reaches of certain streams will be necessary if drafts on storage are to be a dependable controlling factor. Systematic monitoring and reporting of water quality, streamflow, and effluent characteristics must be provided, both to provide a continuing overview of water quality conditions and to permit use of predictive mathematical techniques that facilitate decision-making for water quality protection. Federal agency programs should be reviewed periodically by the Federal Water Pollution Control Administration for incorporation of procedures to safeguard water quality against possible adverse impacts. Reservoir scheduling should be available to provide streamflows, as needs are indicated by monitoring and surveillance of the river system, in order to make optimal use of water and storage capacity of the multi-purpose reservoir system. Measures to increase efficiency of waste treatment plant operation by providing incentives and training to plant operators, methods to control waste discharges of vessels and houseboats, to control erosion from land management practices, and to pre-

vent toxic materials from entering surface waters should be devised and used at the earliest date

Research and development needs also exist. These can be approached through existing national programs of pollution control research, since the pollution problems of the basin are not unique to the area. In the Willamette Basin, research requirements center largely upon methods to control urban and forest land drainage and stormwater overflows.

In the area of social and institutional practices, it would be desirable to develop mechanisms for pollution-control institutions that are based upon the circumstances of watersheds. The Clean Waters Restoration Act of 1966 offers considerable Federal incentive opportunities for development of such institutions, recognizing the efficiencies to be derived in scheduling and cooperative financing of waste collection and treatment facilities and in orderly development and implementation of pollution control plans.

VI. COST OF POLLUTION ABATEMENT AND CONTROL

Costs of pollution abatement and sustained pollution control will not be small. Estimates of the cost of measures required to end existing pollution and to provide a level of waste treatment that meets the requirements of the Oregon State Sanitary Authority and the "adequate treatment" standard required for allocation of storage in Federal reservoirs indicate that about \$40 million must be invested in waste collection and treatment facilities over the next five

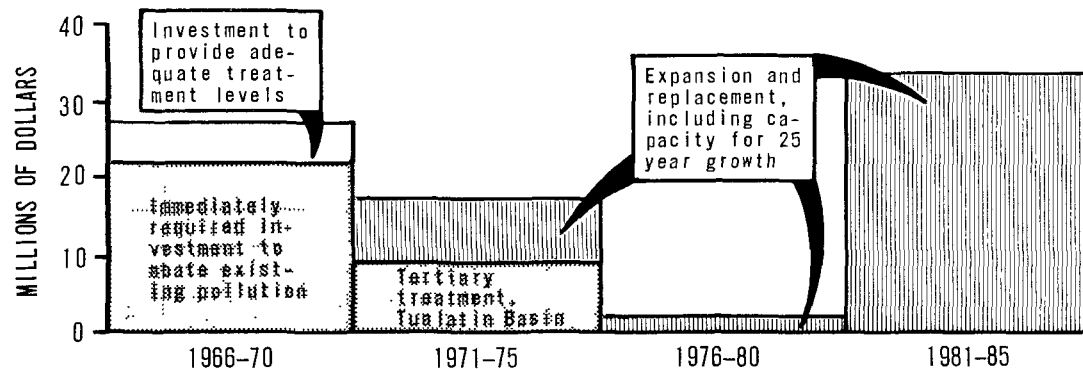


Sewers, such as those shown here, account for an estimated 75 percent of the equivalents of untreated wastes discharged into the Willamette River. Completion of the city's interceptor system will greatly reduce the pollution problems of Portland harbor.



Investments for municipal and industrial waste treatment will decline sharply once pollution abatement is achieved, then rise during the 1980's as existing plants become obsolete and capacity is increased to meet the treatment needs of the next quarter-century.

ASSUMED SCHEDULE OF REQUIRED WASTE TREATMENT INVESTMENTS



years. Roughly a third of the amount—an estimated \$14 million—will be required from pulp and paper mills, for installation of treatment for removal of settleable solids and reduction in strength of pulping liquors. Another \$12 million is attributed to the completion of an interceptor sewer by the city of Portland, in order to end the discharge of a portion of its untreated wastes to the Willamette River. About \$14 million must be spent to provide secondary waste treatment to municipal and industrial wastes from several sources, and to increase the standard of efficiency in the several municipal treatment systems that are overloaded or otherwise inadequate.

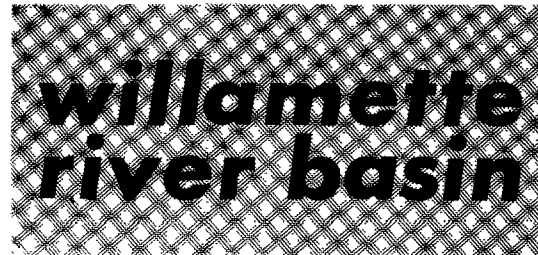
Waste treatment construction costs will persist after adequate treatment is available. Expansion of waste production and obsolescence of treatment facilities will, as time passes, result in continuing pressures on treatment capabilities. Calculations of investment requirements have been projected. These are based on the application of existing technology, 1965 price levels, depreciation schedules based on twenty-five year treatment plant life, and regional allocations of projected population and industrial output. The cost projections indicate that an additional \$65 million will have to be spent—including \$8.5 million for advanced waste treatment in the Tualatin River Basin and \$19.0 million for additional treatment of pulp and paper wastes—to maintain an effective level of waste treatment through the year 1985. Because of the assumed twenty-five year operating life of such facilities, the major portion of waste treatment investments through the year 2010 is assumed to be designed into the cost projection.

In sum, then, the communities and industries of the Willamette River Basin can anticipate the need to expend about \$105 million (1965 dollars) for waste treatment during the two decades between 1965 and 1985. About forty percent of this amount must be spent over the next five years if abatement of existing pollution is to be achieved at the earliest date. Because prevailing practice dictates that treatment plant and sewer capacity be designed to accommodate anticipated expansion of waste loads, the incidence of costs may be expected to decline markedly once adequate waste treatment capabilities have been installed, then to climb again in the 1980's as facilities that were built during the late 1950's and early 1960's have to be replaced.

While pulp and paper mills will have to bear almost a third of the total anticipated cost of waste treatment, the other two-thirds will be spread unevenly among the individual communities and industries of the basin. In many cases these costs may be expected to constitute a considerable burden. Anticipation of such costs should assist municipalities to meet them in an orderly fashion; and Federal grants for treatment plant construction will be a major aid in meeting waste treatment requirements of communities — and, indirectly, of those industries which utilize cooperative municipal-industrial treatment works. Watershed pollution control arrangements could serve a function in easing financial burdens of communities, both by providing expertise in scheduling construction requirements and by spreading the incidence of costs.

Other cost elements, too, must be incurred in meeting pollution-control requirements. Reservoir storage capacity having a value in excess of \$20 million will be pro-

vided by the Federal government, if allocation of storage to provide recommended base streamflows is granted. It is estimated that roughly a million dollars will be required to completely adjudicate existing water rights in order to provide dependable base streamflows for legitimate water uses, including water quality control. Funds must also be invested in monitoring equipment to provide a knowledge of the day-to-day quality, and influences on quality, of the river system.



WILLAMETTE BASIN TMDL

EXECUTIVE SUMMARY

INTRODUCTION AND PURPOSE:

- The Willamette Basin Total Maximum Daily Load (TMDL) is:
 - A pollution analysis to determine why certain waterbodies in the Willamette Basin do not meet water quality standards.
 - A strategy to return those waterbodies to a healthy status.
- TMDLs are essentially a pollution budget which determines:
 - How much pollution a stream can receive and still meet water quality standards.
 - How much excessive pollution is in the stream. (This represents how much pollution must be removed from the stream to meet water quality standards.)
 - Who is responsible for reducing pollution.
 - A framework and commitment for those actions needed to reduce the pollution.
- This TMDL is a series of such studies across much of the Willamette Basin, addressing primarily bacteria, mercury and temperature. These pollutants are known to be problematic in much of the Willamette Basin. (Warm temperatures are considered a water quality pollutant.)
- The Willamette Basin consists of 12 separate subbasins and the mainstem Willamette River which starts near Eugene and flows north to the Columbia River.
- This executive summary provides:
 - A description of how the TMDL document is organized.
 - An overview of the TMDL.
 - Specific information for bacteria, mercury, and temperature.
- Each part includes information on key issues, findings, and what will happen as a result of this TMDL.

WILLAMETTE RIVER TMDL DOCUMENT ORGANIZATION:

- This TMDL document has been structured to accommodate multiple users ranging from the U.S. Environmental Protection Agency (which reviews and approves the TMDL), permitted sources of pollution, management agencies that will be called on for implementation of the TMDL, technical reviewers, and readers with a general interest.
- The document is structured to provide a focus on the mainstem Willamette River and nine of the 12 subbasins.
- It contains the following chapters:
 - An overview of the Willamette Basin.
 - Specific chapters on the three primary parameters of concern: bacteria, mercury and temperature. These three chapters contain detailed analyses for each pollutant and focus primarily on the mainstem Willamette River. For bacteria and temperature, these chapters also provide summaries of the Subbasin-level analyses.
 - Specific chapters have been created for each of the nine subbasins that were the focus of detailed monitoring and analysis. These provide a local focus of all the TMDL-related issues within a geographic region.

- A water quality management plan (WQMP) is included which provides a framework for the implementation of the TMDL. While the TMDL analysis determines what pollution reductions are needed to achieve water quality standards, the WQMP indicates the strategies needed to make the reductions happen.
- Technical appendices have been included to provide detailed assumptions, analyses, and other supporting information. These appendices have been designed to enhance the readability of the main chapters by placing much of the detailed technical information in the appendices rather than in the main chapters.

Overview:

- The Willamette is ODEQ's first attempt at a basinwide TMDL; previous TMDLs completed by ODEQ focused on single subbasins.
- The Willamette Basin consists of 12 individual subbasins.
- Temperature, mercury and bacteria are three main pollutants presenting widespread problems in the Basin. These parameters are addressed for specific subbasins.
- Several additional pollutants including dissolved oxygen, turbidity, and toxics (DDT, aldrin, dieldrin) were addressed for specific waterbodies.
- The scale of the analysis varies depending on the pollutant:
 - Mercury –
 - Applies to the entire basin (all 12 subbasins).
 - Temperature –
 - Applies to 9 subbasins, with a major effort on the mainstem Willamette River.
 - Tualatin TMDL completed in 2001; Yamhill and Molalla-Pudding were deferred.
 - The 9 individual subbasins were covered in a manner consistent with previous temperature TMDLs.
 - Mainstem system represents a major modeling effort; largest single piece of TMDL.
 - Bacteria –
 - TMDL applies to 4 subbasins that have a higher proportion of urban and agricultural land uses (Lower Willamette, Middle Willamette, Upper Willamette, and Clackamas).
 - Bacteria planning targets apply to other five subbasins that have no 303(d) (impaired waterbody) listings yet but have the potential for similar problems. This approach is proactive in nature and will put protections in place to hopefully prevent future 303(d) listings.
- Stakeholder Outreach
 - The Willamette River TMDL Council, comprised of more than twenty stakeholder representatives, focused on mainstem temperature and mercury issues. This group provided direction and review throughout the TMDL process.
 - Other outreach has occurred, to watershed councils, state and federal agencies, specific entities and other interested parties.
- Designated Management Agencies (DMAs)
 - DMAs implement nonpoint source TMDL pollutant reductions. It is likely that more than 100 jurisdictions in the Willamette Basin will be designated as DMAs. These DMAs include 92 cities and 8 counties, plus special entities such as U.S. Army Corps of Engineers (USACE).

- USEPA Involvement/Issues
 - Numerous discussions and briefings have occurred with staff from the USEPA to discuss the methodology and findings of these TMDLs.

Bacteria:

Key Issues:

- Bacteria problems have been identified on the 303(d) list of water quality impaired waterbodies in the urbanized and agricultural portions of the Lower Willamette, Middle Willamette, Upper Willamette, and Clackamas subbasins. These problem areas have been specifically addressed as part of this TMDL.
- Bacteria can affect water contact recreation usage by increasing the risk of pathogen-induced illness (typically gastrointestinal, respiratory, eye, ear, nose, throat and skin diseases) through skin contact or ingestion of water.
- Bacteria are typically carried into streams and rivers as part of stormwater runoff in urban and agricultural areas.
- Very little bacteria originate in forested areas.
- Lower Willamette is affected by the Portland Combined Sewer Overflow (CSO) problems:
 - Portland CSO agreement with ODEQ and the Oregon Environmental Quality Commission (EQC) assumes exceedence frequencies of one every 3 summers and 4 every winter (see Amended Stipulation and Final Order (ASFO, 1994).
 - Modeling of the Willamette River in the region of the Portland CSO area indicated that allocated reductions upstream, in combination with reductions from the implementation of the ASFO, will result in elimination of human health criteria violations throughout the river.
- Wastewater treatment plants have permit limits that minimize their contribution of bacteria and ensure they meet water quality standards prior to discharge.
- Permits for larger confined animal feeding operations are issued by Oregon Department of Agriculture (ODA). These permits prohibit discharge resulting from specific aspects of livestock operations.
- Bacteria problems have not been specifically identified in the North Santiam, South Santiam, McKenzie, Middle Fork, and Coast Fork Subbasins. However, the potential is very high for future bacteria problems to develop. As a result, bacteria reduction targets are being provided for these subbasins as a planning tool to allow local cities and watershed managers the opportunity to reduce the likelihood of future problems with bacterial contamination.

Findings:

- Much of the Mainstem of the Willamette River meets water quality standards most of the time. Violations are most common in the lower reach of the river in areas undergoing active remediation, and presumably near the confluences of major tributaries.
- Bacteria levels are highest in urban areas. This finding is attributed primarily to stormwater runoff. Likely sources include animal wastes (including pet waste), leakages and equipment failures in sanitary sewer systems, failing septic systems, and fecal waste from wildlife such as ducks and geese. Needed bacteria reductions for urban areas are in the 60-90 percent range.
- Bacteria levels are also high in several largely agricultural tributaries to the Willamette River. Operations that involve livestock and livestock fertilizers tend to provide the most

significant contributions. Other likely sources include failing septic systems and fecal waste from wildlife. Needed bacteria reductions for agricultural/rural areas are in the 60-80 percent range.

- Combined Sewage Overflows (CSOs) are another major source of bacteria in the City of Portland. This occurs when larger rainstorms overwhelm the combined stormwater and sewage system resulting in the release of untreated sewage into the Willamette River. These combined systems are fairly typical of older, large cities. The “Big Pipe” construction project in Portland is being built to virtually eliminate such problems.

What Will Happen:

- Cities with populations of 50,000 and larger are required to have stormwater permits (Phase 1 and Phase 2 municipal stormwater (MS4) permits) to minimize bacteria and other pollutant runoff. These permits will be updated to reflect new information from this TMDL and may require the implementation of more stringent controls for bacteria as necessary.
- Cities less than 50,000 will need to develop stormwater strategies to minimize the amount of bacteria that will enter streams and rivers. Though these cities will not have permits, their plans will be reviewed and approved by ODEQ.
- The City of Portland will meet the terms of its Amended Stipulation and Final Order to control CSO overflows by 2011.
- Agricultural lands are under the jurisdiction of the Oregon Department of Agriculture. Existing Agricultural Water Quality Management Area Plans are updated every two years. The findings of this TMDL will be incorporated into these plans.

Mercury:

Key Issues:

- The Oregon Health Division has posted fish consumption advisories for the Willamette River, Cottage Grove Reservoir and Dorena Reservoir due to high concentrations of mercury in certain fish species. These advisories discourage the consumption of these fish.
- The fish consumption advisories have triggered this mercury TMDL. The goal of this TMDL is to determine how to reduce the amount of mercury in the river so that mercury levels in fish will drop to an acceptable level. The ultimate objective is to eliminate the fish consumption advisory for mercury so fish are safe to eat. The mercury TMDL is not due to the violation of in-stream water quality standards.
- Initially, it was thought that most mercury in the Willamette comes from old mercury and gold mines located in the mountains of the Coast Fork Subbasin. That does not appear to be the case based on the analysis and the data considered in this study.
- This is the first mercury TMDL in Oregon.

Findings:

- Mercury comes from many sources in the Willamette:
 - Mercury naturally occurs in the soils of the Willamette Valley. The excess erosion of these soils from agricultural, forested, and urban lands contribute to mercury in the river.
 - Mercury is deposited onto the land and water from numerous air pollution sources. These include certain industries in the Willamette Valley; the burning of

- fossil fuels by cars, trucks, trains, boilers, etc; fires; and sources outside the United States.
 - Small quantities of mercury are discharged into the river by wastewater treatment plants and certain industries.
 - Wastewater treatment plants receive mercury through disposal of consumer products (lights and switches) and from dental amalgams (tooth fillings).
 - Mercury occurs in native trees and is released during processing wood pulp and paper.
 - Abandoned mines represent a small contribution of the mercury problem in the Willamette River though they are a significant source of mercury in the Cottage Grove and Dorena Reservoirs.
- A 27% reduction in mercury pollution in the mainstem Willamette is needed to eventually remove the fish consumption advisory.
- Incremental TMDL in 2 phases:
 - The Phase 1 TMDL will set allocations by sectors (e.g. wastewater treatment plants; industrial dischargers; urban, agricultural, and forested lands);
 - Path Forward/Phase 2 - ODEQ and stakeholders have committed to increase monitoring and take action now to reduce mercury discharges.
 - ODEQ will develop a second mercury TMDL in 2011 that will likely have revised targets, reduction requirements, and may include individual permit limits for sources.

What Will Happen:

- Sources of mercury pollution will be required develop mercury reduction plans and reduce the amount of mercury released into the environment. Examples of areas to be addressed include:
 - Reducing mercury in wastewater discharges.
 - Controlling soil erosion in urban, agricultural, and forested lands to minimize the movement of mercury particles into waterways.
 - Minimize mercury from abandoned mines.
- ODEQ and stakeholders are working to design a plan for data collection and the future analyses needed. Additional mercury data will be collected with funding from EPA and the wastewater dischargers;
 - Characterizing levels in waterbodies.
 - Characterizing levels from wastewater discharges.
 - Monitoring levels of airborne mercury deposited within the Willamette Valley.
 - Analyzing and modeling mercury in water and fish.

Temperature:

Key Issues:

- The Willamette Basin is home to a number of threatened and endangered species of fish; warm water temperatures are a factor in their decline.
- Temperatures frequently exceed biological criteria for rearing and migration and exceed spawning criteria during portions of the spawning period.
- The Willamette River and many of its tributaries have been greatly altered hydrologically by dams, urbanization, and stream channelization activities.
- TMDL addressed temperature in 9 of 12 Willamette Subbasins, including the entire mainstem river.
- Significant input was received from the Willamette River TMDL Council on the mainstem effort.
- Individual subbasins were addressed separately (typical TMDL approach).
- Implementation of new temperature standard was a big challenge for this TMDL due to the timing of the standard's approval (March, 2004), the lack of developed implementation guidance, and the scope and complexity of the Willamette Basin TMDLs (the most ambitious and complicated TMDL developed in Oregon to date).
- Stakeholders assisted with analytical plan development, data collection and analysis as part of a collaborative approach. Significant contributions were made by the Association of Clean Water Agencies, United States Army Corps of Engineers and Northwest Pulp and Paper Association.
- Very comprehensive data collection and TMDL analysis effort (model developed to examine period of critical conditions for 2 years). This was a collaborative monitoring and modeling process involving Portland State University, the US Geological Survey (USGS), the Bureau of Land Management (BLM), the United States Forest Service (USFS) and ODEQ.
- Allocation framework reflected input from TMDL Council.
- Reserve Capacity is available on mainstem and in subbasins and is unique compared to most previous TMDLs. Reserve capacity represents some heat allocation that has been set aside to accommodate future growth and development rather than allocating it to existing sources.
- The impact of heated discharges upstream of the Santiam River is greatest near the City of Albany.
- TMDL based on current USACE reservoir operations rather than natural flow and temperature regimes.
- Meeting standards for protecting salmon as they migrate up the river will require protection of cold water refuges (habitat).
- Restoration in tributaries will provide the greatest benefits to water quality and habitat.

Findings:

- TMDL analysis demonstrates the river naturally exceeds standards for protecting salmon during warmest months. When this occurs, this natural condition is used to set pollutant limits;
- Impacts of major dams, reservoirs and loss of riparian vegetation are the major sources of river warming;
- Other potential causes of river warming include loss of wetlands, channel modifications, and flow modifications;

- Oregon temperature standard allows human increases of 0.3°C over protective temperature limits. The TMDL allows point sources up to 0.20 °C increase in the lower river, and up to 0.23 °C to sources in the upper river.
- Several point source discharges are limited during part of the year by these wasteload allocations;
- TMDL allows increases in point source heat load relative to current levels, though generally less than allowed under existing permits;
- Waste load allocations are flow-based and increase as river flow, and therefore load capacity, increases.
- TMDL requires reductions in nonpoint sources, but allows a portion of the human use allowance to be applied to nonpoint sources. This is a new policy for nonpoint sources and will require the development of implementation guidance.

What Will Happen:

Mainstem:

- All point sources of pollution (industrial and waste water treatment plants) receive unique permit limits based on real time river conditions.
 - Permits for sources from the Santiam River southward on the average hold pollution impacts at current levels with some growth available to most. Some sources (particularly industrial) have reduced pollutant limits.
 - Permits for sources northward of the Santiam River will allow some increase above current operations, but less than allowed in current permits.
- USACE will be required to analyze impacts of dams on temperature and develop temperature management plans to minimize effects;
 - Will consider operational changes.
 - May result in more costly structural modifications such as the selective withdrawal project at the Cougar Dam in Lane County.
- Nonpoint Pollution Sources (urban, agricultural, forestry) will be required to restore natural riparian (streamside) vegetation:
 - Even though trees will not substantially shade the mainstem river, streamside shading provides localized cool water refugia for fish.
 - Restoration and protection will be managed through implementation plans that already exist (Agriculture and Forestry) or through those developed by other designated management agencies.
- Some heat load has been held back to provide for future growth.
 - One half of this reserve capacity will be available for allocation when the TMDL is issued;
 - The second half will be available when USACE has completed analysis of effects on temperature in the Willamette River.

Subbasin:

- Limits on point sources in subbasins may restrict operation or growth due to relatively smaller stream flows.
- Nonpoint Sources (urban, agricultural, forestry) will be required to protect or restore natural riparian vegetation.
 - Effectiveness of shading increases as stream width narrows. Much of the critical fish habitat is found in the foothill reaches

Overall:

- ODEQ will include new permit limits with renewal of wastewater permits;

- Senate Bill (SB) 1010 Plans will be updated to reflect TMDL.
- Oregon Forest Practices Act will govern for non-federal forest lands.
- Northwest Forest Plan and federal water quality restoration plans will govern federal forest lands.
- For urban and rural/non-agricultural lands, Designated Management Agencies (DMAs) will be required to develop TMDL Implementation Plans within 18 months of the issuance of the TMDL. This requirement includes the USACE for dams.

Water Quality Management Plan:

- The Water Quality Management Plan (WQMP) is the framework for implementing the TMDL. It provides information regarding:
 - Who is responsible for which activities to ensure that water quality improvements will be achieved over time:
 - Permitting activities are typically managed by ODEQ.
 - Designated Management Agencies (DMAs) are cities, counties, and other jurisdictions, such as the US Army Corps of Engineers, that have authority to implement water quality improvements. These DMAs will be required to develop TMDL Implementation Plans to address TMDL allocations within their jurisdiction.
 - TMDL Implementation Plans are due within 18 months from the date of the Notification Letters that ODEQ sends to DMAs, permittees, and other affected parties. The Notification Letters are to be sent out by ODEQ within 20 days of the TMDL being issued as an Order by ODEQ. The Implementation Plan due date is not dependent on USEPA's approval of the TMDL.
 - Oregon Department of Agriculture has responsibility for water quality improvements on agricultural lands. This is implemented through the Senate Bill 1010 process.
 - Oregon Department of Forestry has responsibility for water quality improvements on non-federal forest lands. This is implemented through the state Forest Practices Act.
 - Federal land managers (Bureau of Land Management and US Forest Service) have responsibilities for water quality improvements on federal lands. This is implemented through Water Quality Restoration Plans.
 - A general timeframe estimating when water quality standards for each parameter (e.g., temperature, bacteria) are expected to be met.
- Oregon uses an adaptive management approach to implementing TMDLs. This approach compares TMDL implementation activities to the success of water quality improvements. When the implementation activities appear to be successful through monitoring and reporting by DMAs, no changes would be proposed. When water quality improvements are not apparent, implementing agencies and ODEQ would consider alternative options to achieve water quality improvements.

Appendix 3

Permit Applications and Authorizations

Permit Number: 1200-Z
Effective: July 1, 2007
Expiration: June 30, 2012
Page 1 of 28

**GENERAL PERMIT
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
STORM WATER DISCHARGE PERMIT**

Department of Environmental Quality
811 S.W. Sixth Avenue, Portland, OR 97204
Telephone: (503) 229-5630 or 1-800-452-4011 toll free in Oregon
Issued pursuant to ORS 468B.050 and The Federal Clean Water Act

ISSUED TO: 11/26/2007 GEN 12-Z MULTNOMAH/NWR
File No: 108103 ORR600289

SCHNITTER STEEL INDUSTRIES, INC. - DBA
PO Box 10047
Portland, OR 97296-0047

Site: SCHNITZER STEEL PRODUCTS CO.

SOURCES THAT ARE REQUIRED TO OBTAIN COVERAGE UNDER THIS PERMIT

Pursuant to 40 Code of Federal Regulation (CFR) § 122.26(b)(14)(i - ix, xi) and OAR 340-045-0033(5), facilities identified in *Table 1: Sources Covered* on p. 3 below that may discharge stormwater from a point source to surface waters or to conveyance systems that discharge to surface waters: These facilities must complete the application and registration procedures to obtain coverage under the permit; see *Permit Coverage and Exclusion front Coverage* on p. 5 below.

Note:

- 1) Facilities may apply for conditional exclusion from the requirement to register for coverage under this permit if there is no exposure of industrial activities and materials to stormwater pursuant to 40 CFR § 122.26(g); see *Permit Coverage and Exclusion, from Coverage* on p. 5 below.
- 2) Sources meeting the description above, but that are excluded from this permit include: (i) Construction activities, asphalt mix batch plants, *concrete* batch plants and Standard Industrial Classification code 14, *Mining and Quarrying of Nonmetallic Minerals, Except Fuels*. These activities are regulated under separate general permits; and (ii) any source that has obtained an individual NPDES permit for the discharge.



Lauri Amnon, Administrator
Water Quality Division

Date: August 23, 2006

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the permit registrant is authorized to construct, install, modify, or operate stormwater treatment or control facilities, and to discharge stormwater to public waters in conformance with all the requirements, limitations, and conditions set forth in the attached schedules as follows:

DEQ USE ONLY

Application #: _____

File #: _____

EPA #: _____

LLID/RM: _____

DOC Conf.: _____

Notes: _____

**RENEWAL APPLICATION
NPDES STORMWATER DISCHARGE GENERAL
PERMIT #1200-Z**



Oregon Department of Environmental Quality

DEQ USE ONLY

Received: _____

A. REFERENCE INFORMATION

1. Legal Name:	2. Common Name:
3. DEQ File #:	4. Is the applicant the owner of the facility? <input type="checkbox"/> Yes <input type="checkbox"/> No
5. County:	6. Facility Physical Address: City, State, Zip Code:
7. Facility Primary SIC code:	8. Facility Secondary SIC code(s):
9. Legal Contact:	Telephone #: _____ Email: _____
Mailing Address:	City, State, Zip Code: _____
10. Facility Contact:	Telephone #: _____ Email: _____
Mailing Address:	City, State, Zip Code: _____
11. Invoice to:	Telephone #: _____ Email: _____
Billing Address:	City, State, Zip Code: _____

B. STORMWATER DISCHARGE INFORMATION

12. Receiving waterbody: List the name(s) of the water(s) that receive stormwater from your facility
- ☐ Direct Discharge: Creek/Stream:
- ☐ Indirect Discharge through a Municipal Storm Sewer or Drainage System (MS4), ditch or other manmade conveyance system
Receiving stream: _____

C. SIGNATURE OF LEGALLY AUTHORIZED REPRESENTATIVE

I hereby certify that the information contained in this application is true and correct to the best of my knowledge and belief. In addition, I agree to pay all permit fees required by Oregon Administrative Rules 340-45.

Name of Legally Authorized Representative (Type or Print)

Title

Signature of Legally Authorized Representative

Date

A. REFERENCE INFORMATION:

1. Enter the legal name of the applicant. This must be the **legal** Oregon name (i.e., Acme Products, Inc.) or the **legal** representative of the company if it operates under an assumed business name (i.e., John Smith, dba Acme Products). The name must be a legal, active name registered with the Oregon Department of Commerce, Corporation Division (503) 378-4752, unless otherwise exempted by their regulations. The permit will be issued to the legal name of the applicant.

If the legal name of the applicant has changed since the previous permit was issued or the permit needs to be transferred to a new owner, a *Name Change/Transfer of Ownership* form must also be submitted with this application. This form is available by contacting a DEQ regional office listed below or on DEQ's website, located at <http://www.deq.state.or.us/wq/wqpermit/docs/forms/terminationazcols.pdf>.

2. Enter the common name of the facility or operation if different than the legal name.
3. Enter the DEQ file number (this number may be found on the first page of your permit).
4. Indicate if the applicant is the owner of the facility.
5. Indicate County of facility.
6. Enter the physical location of the facility (not mailing address), including city, state, and zip code.
7. Provide the primary Standard Industrial Classification (SIC) code that best describes the primary industrial activities performed by your facility under which you are required to obtain permit coverage. Your primary industrial activity includes any activities performed on-site which are (1) identified by the facility's one SIC code for which the facility is primarily engaged; and (2) included in the narrative descriptions of 40 CFR 122.26(b)(14)(i), (iv), (v), or (vii), and (ix). See *Table 1: Sources Covered* on page 3 of the permit for a complete list of SIC codes and industrial activities.
8. If your site has secondary industrial activities (i.e., co-located activities) that are not identified as your primary industrial activity, provide the SIC code(s) that describe these other industrial activities. You are only required to provide SIC code(s) for industrial activities on site that are listed in *Table 1: Sources Covered* on page 3 of the permit.
9. Enter the name, telephone number, and mailing address of the Legal Contact. The Legal Contact is the person that receives official correspondence from DEQ, such as renewal notices or notices of noncompliance, and may be contacted if there are questions about this application.
10. Enter the name, telephone number and mailing address of the Facility Contact if different from the Legal Contact. The Facility Contact is the person located at the facility that has specific knowledge of the facility or operation under permit (e.g., the treatment plant operator), and may be contacted if there are specific questions about this application.
11. Enter invoicing information for billing purposes if different from the Legal Contact (e.g., "Invoice To: Business Office - Accounts Payable").

B. STORM WATER DISCHARGE INFORMATION:

12. Indicate the name(s) of the receiving water(s) that industrial stormwater from your facility will discharge to. Your receiving water may be a lake, stream, river, wetland or other waterbody, and may or may not be located adjacent to your facility. Your stormwater may discharge directly to the receiving water or indirectly via a storm sewer system, an open drain or ditch, or other conveyance structure. Do NOT list a man-made conveyance, such as a storm sewer system, as your receiving water. Indicate the **first natural receiving water** your stormwater discharge enters. For example, if your discharge enters a storm sewer system, that empties into Trout Creek, which flows into Pine River, your receiving water is Trout Creek, because it is the first natural waterbody your discharge will reach. Similarly, a discharge into a ditch that feeds Spring Creek should be identified as "Spring Creek" since the ditch is a manmade conveyance. If you discharge into a municipal separate storm sewer system (MS4), you must identify the waterbody into which that portion of the storm sewer discharges. That information should be readily available from the operator of the MS4.

C. SIGNATURE OF LEGALLY AUTHORIZED REPRESENTATIVE:

A legally authorized representative must sign the application. The following are authorized to sign the document:

- ♦ **Corporation** — President, secretary, treasurer, vice-president, or any person who performs principal business functions; or a manager of one or more facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million that is authorized in accordance to corporate procedure to sign such documents
- ♦ **Partnership** — General partner *[list of general partners, their addresses and telephone numbers]*
- ♦ **Sole Proprietorship** — Owner(s) *[each owner must sign the application]*
- ♦ **City, County, State, Federal, or other Public Facility** — Principal executive officer or ranking elected official
- ♦ **Limited Liability Company** — Member
- ♦ **Trusts** — Acting trustee *[list of trustees, their addresses and telephone numbers]*

APPLICATION SUBMITTAL:

The following application materials must be completed and submitted by **March 31, 2012** to the DEQ regional office below: **Signed Application Form; Stormwater Pollution Control Plan (SWPCP), and SWPCP Checklist.** No fees are required with this application.

DEQ Regional Offices		
DEQ Northwest Region 2020 SW 4 th Ave., Suite 400 Portland, OR 97201-4987 (503) 229-5263 or 1-800-452-4011	DEQ Western Region 165 East 7 th Avenue, Ste. 100 Eugene, OR 97401-3049 (541)-687-7326 or 1-800-844-8467	DEQ Eastern Region 700 SE Emigrant, Suite 330 Pendleton, OR 97801 (541) 276-4063 or 1-800-452-4011

NORTHWEST REGION (county)		WESTERN REGION (county)			
Clackamas	Multnomah	Benton	Douglas	Lane	Marion
Clatsop	Tillamook	Coos	Jackson	Lincoln	Polk
Columbia	Washington	Curry	Josephine	Linn	Yamhill
EASTERN REGION (county)					
Baker	Gilliam	Hood River	Lake	Sherman	Wallowa
Crook	Grant	Jefferson	Malheur	Umatilla	Wasco
Deschutes	Harney	Klamath	Morrow	Union	Wheeler

Appendix 4
Facility Inspections



CITY OF PORTLAND ENVIRONMENTAL SERVICES



Water Pollution Control Laboratory

6543 N. Burlington Avenue, Bldg. 217, Portland, Oregon 97203 • Dan Saltzman, Commissioner • Dean Marriott, Director

April 14, 2011

Mr. Corey Bailey
Schnitzer Steel Industries, Inc.
3200 NW Yeon Avenue
PO Box 10047
Portland, OR 97296-0047

Subject: Stormwater Site Inspection 10005 N Burgard Way; DEQ File # 108103

Dear Mr. Bailey:

On April 12, 2011, City of Portland staff conducted an inspection of your facility, located at 12005 N. Burgard, to assess compliance with conditions contained in its NPDES 1200-Z Permit. The following items were noted and discussed during the inspection:

Please note the following to ensure compliance with your permit:

- The site work now in progress **does require** that the site's SWPCP be revised to reflect and incorporate these changes. The revised site plan must also show the location of all spill kits, a discussion covering the choice of outfalls to be monitored, and changes to the site's stormwater system. The revised SWPCP is due ninety days from the receipt of this letter or by **July 20, 2011**. {See Permit Schedule A.2. & A.3.b}

Please note the following in order to protect stormwater quality:

- ☐ As the on-site stormwater system is being redone, discharging may only occur when tank storage capacity requires it. The City recommends that all discharges from the rainwater storage tanks be sampled both prior to the discharge, to ascertain if the collected water is clean enough to discharge, and while discharging to meet the 1200-Z requirements, as this may be less than the required four times per rain year.
- ☐ The City recommends that all on-site contractors be notified/informed as to whom the on-site spill response contact is and that they provide their written procedures for spill response to Schnitzer Steel staff. The goal is to integrate these responses to better protect stormwater quality.
- ☐ The City recommends that the site staff continue working with DEQ staff on the re-paving and storm system changes. As DEQ is the regulatory authority, their input is essential in completing these efforts to improve stormwater collection for use on site as well as protect stormwater quality and work health and safety. Without their cooperation the work can not move forward.

The City appreciates the effort and resources committed by Schnitzer Steel Industries to stormwater management at your facility, and your assistance during the inspection. If you have any questions contact me at 503-823-5537.

Sincerely,

A handwritten signature in black ink, appearing to read "Timothy P. Dean". The signature is fluid and cursive, with the first name "Timothy" being more prominent and the last name "Dean" following in a similar style.

Timothy P. Dean

Permit Manager

City of Portland

Industrial Stormwater Program

List of Corrects, Changes Needed in 12/24/2009 SWPCP for Schnitzer Steel Site

- Page 7, Need to include the location & status of water wells on the site. See enclosed memo & map for guidance.
- Page 9 Table 1, list of active outfalls also states that seven outfalls will be sampled. In discussions with site staff only 4 will be sampled - #1, 2, 13, & 14. Please revise, leaving the off-site outfalls #18, 19, & 20 not sampled. Also include in the text of the SWPCP discussion covering why the 4 outfalls chosen for sampling were chosen (i.e. why #13 & 14 & not 13 & 16, etc.).
- Page 9 Table 1, update drainage system information. The flows through #2 are from most all of basin R1 and only after being collected and stored.
- Page 12 second paragraph lists #2 as a former outfall. Need discussion in text covering #2's former & current uses.
- Page 14 Table 2, the frequency of review – those marked as “once” recommend using “as needed” instead.
- Page 16, 4.1.2, text seems to indicate that Outfall #14 has 2 OWS units – review & revise & clarify as needed.
- Page 25, 5.0, Make sure that the Site Map, Table 1 & this section are self-consistent.
- Please send a copy of the site's current SPCC plan to the City (me) for review as DEQ's Agent.

Thanks,

Tim Dean

Appendix 5
Scrap Acceptance Guidelines

METAL THEFT

In an effort to curtail the rising incidence of metal theft, Schnitzer Steel's Oregon operations refuse to accept the following materials unless ownership is clearly established:

- » New production scrap or new materials that are part of a manufacturing process that are being sold by an individual, not a company.
- » Items used only by governments, utilities, railroads or for very specific purposes. This includes guardrails, manhole covers, certain cables used only in high voltage transmission lines, historic markers, cemetery plaques and artwork.
- » Full-sized, new materials such as those used in construction or equipment tools used by contractors.
- » Materials that may not be new but are clearly suspect such as bleachers from an athletic field or traffic signs.
- » Beer kegs, soda cylinders and shopping carts.
- » End-of-life vehicles from an unknown customer unless a written record of title is presented. (In some locations, end-of-life vehicles are accepted only from licensed dismantlers and hulk haulers.)
- » Materials that have been reported stolen.

Schnitzer Steel maintains records of all transactions and cooperates fully with local law enforcement in the prosecution of metal theft.

SCHNITZER STEEL INDUSTRIES, INC.

12005 N. BURGARD RD. • PORTLAND, OR 97203

PH 503.286.5771

SCRAP ACCEPTANCE GUIDELINES

SCHNITZER STEEL INDUSTRIES, INC.



RECYCLING FOR A SUSTAINABLE FUTURE

DEAR CUSTOMERS:

This brochure clarifies our guidelines for accepting recyclable metals. These requirements reflect our commitment to responsible environmental management. Please be aware that many of our guidelines are controlled by state and federal environmental regulations which apply both to us and to our customers.

This list is not inclusive; other items not listed may be inappropriate for recycling as scrap metal. Please read this brochure carefully, and contact us at 503.286.5771 if you have questions about specific items. Remember that any load may be rejected at your cost if these guidelines are not followed.

The following materials will NOT be accepted at our facility:

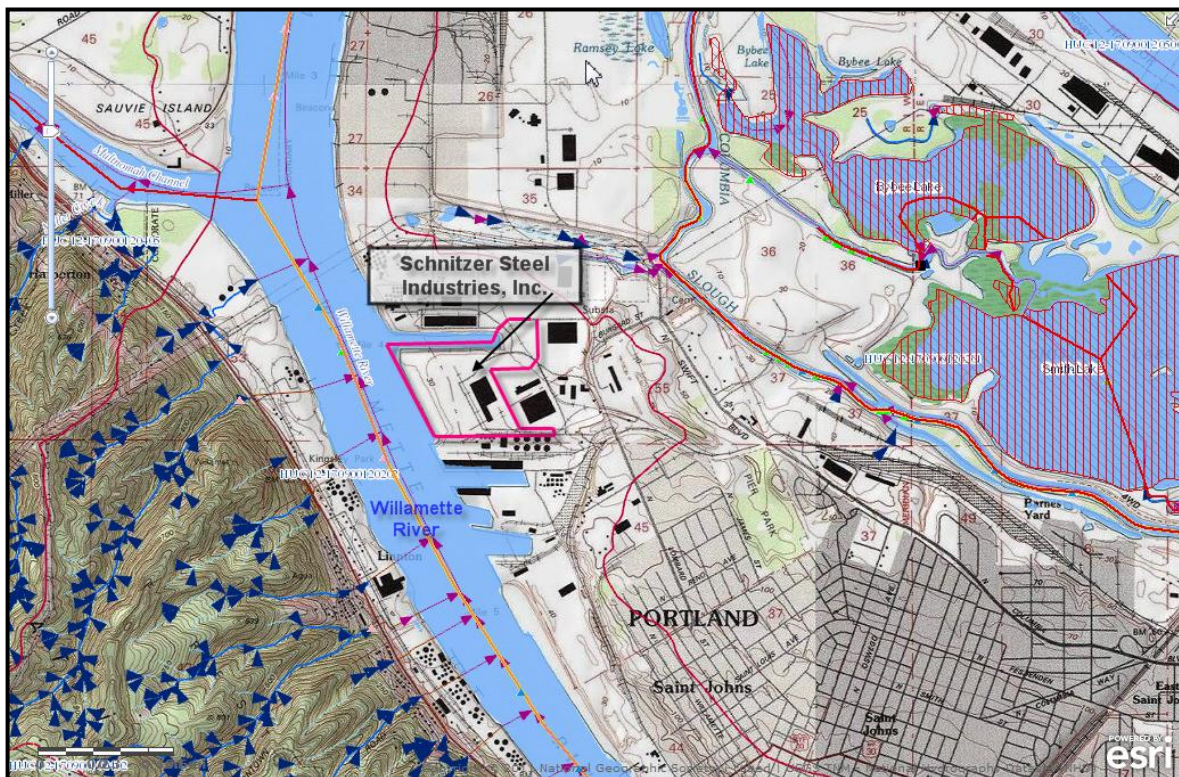
- » Refrigerants (including CFCs and HCFCs) in refrigerators and air conditioners. Please note that Clean Air Act regulations (§608(b)(1) and §608(c)) prohibit any release of refrigerants to the atmosphere, and require persons handling refrigerants to follow specific procedures. Our customers are REQUIRED to sign a statement certifying that all refrigerants have been properly removed (40 CFR §82).
- » Asbestos or asbestos containing materials, such as pipe insulation and surfacing material commonly found on I-beams, tanks, and other structural and demolition debris (40 CFR §61.150).

- » Oils, gasoline, other petroleum products and antifreeze. This includes hydraulic fluids, gear oils and grease. Hydraulic equipment MUST have hydraulic hoses removed and cylinders cut open and drained.
- » Lead-acid or NiCad batteries or battery parts, including automobile batteries (40 CFR §273).
- » Items that contain or have contained PCBs, including small capacitors, fluorescent light ballasts and electrical transformers or transformer components and paint (TSCA and 40 CFR §258 and §261).
- » Automobile air bags or canisters, which contain sodium azide (40 CFR §261).
- » Tin cans.
- » Paint cans or other paint containers.
- » Fluorescent lights, neon, high intensity or mercury vapor lights.
- » Circuit boards.
- » Any material containing hazardous or toxic substances.
- » Military scrap of any kind, unless approved in advance.
- » Explosives or explosive residues.
- » Radioactive materials of any kind.
- » Tires, wood, dirt, yard debris, concrete, asphalt, glass, rubber, or other non-metallic materials.
- » Microwaves or computers.

The following items will be accepted ONLY if prepared as described:

- » Appliances: ALL electrical components, motors and compressors MUST be removed.
- » Automobiles (only from licensed auto dismantlers): ALL fluids, including refrigerants, MUST be drained. Tires, batteries and cable leads, lead wheel weights, mercury switches and undeployed air bags MUST be removed.
- » Air conditioning compressors: MUST be removed from item, cut in half, and drained.
- » Drums, barrels and other containers: NEED certification that they have been triple-rinsed, with date of cleaning marked on container; opening of 2' in diameter is required for inspection.
- » Gas cylinders, including air bottles, shock absorbers, and propane and other gas tanks, MUST be cut in half.
- » Cable and wire: MUST be cut in three-foot lengths, or coiled and banded with 3/4-inch steel banding in at least four places.
- » Metal banding: MUST be cut in one-foot lengths.
- » Chain-link fencing: MUST be cut in sections no larger than 18 feet by 4 feet.
- » Aerosol cans: MUST be empty and crushed or punctured. Plastic caps must be removed.

Appendix 6
General Location Maps



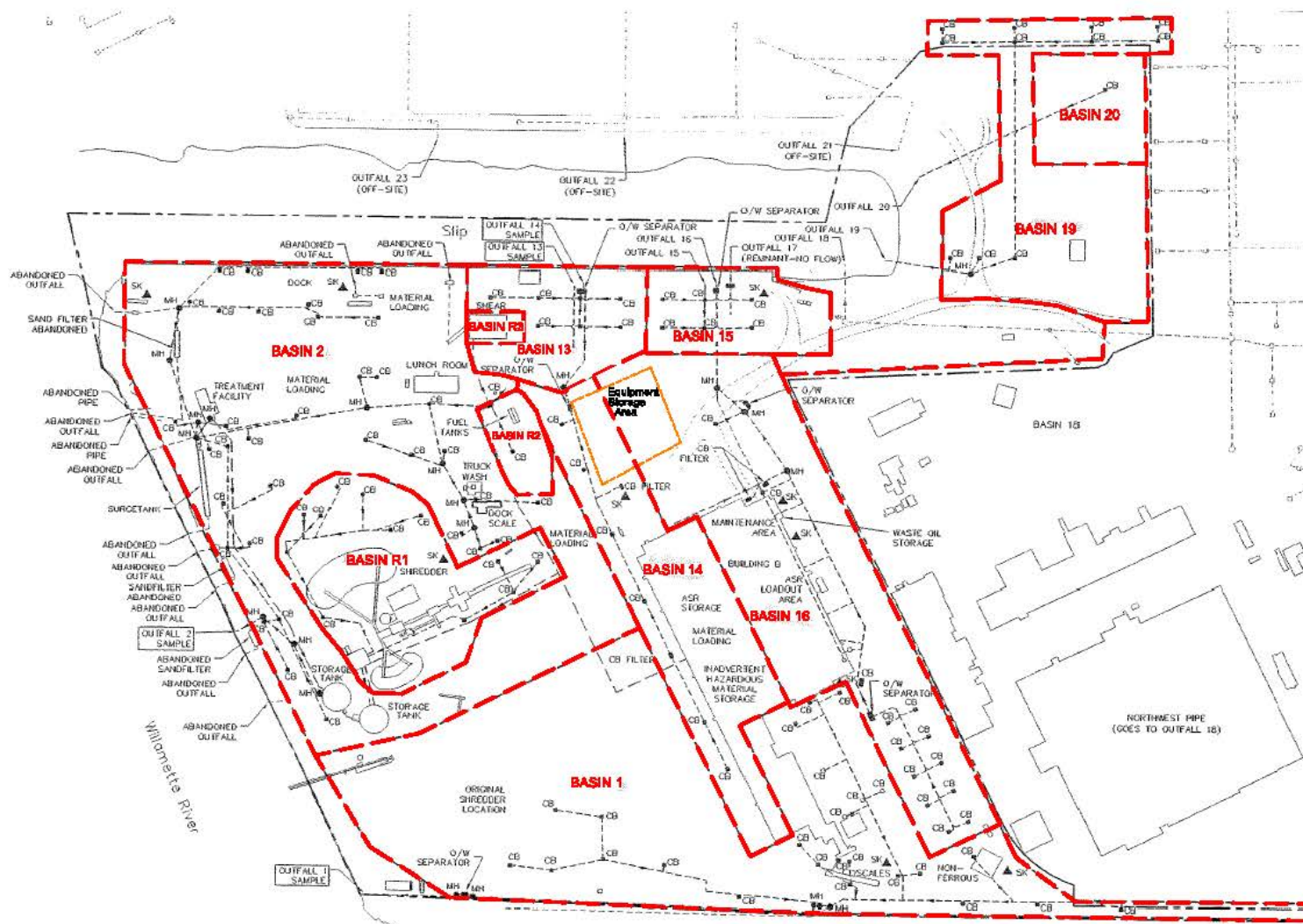
Schnitzer Steel Industries, Inc.
Portland, Oregon

Source (Aerial Photo): Google Earth
Source (Topo Map): ArcGIS Maps (www.arcgis.com/home/webmap/viewer.html)
Accessed: June 2011



Appendix 7

Site Maps



KEY

- Catch Basin
- Storm Drain Manhole
- ▲ Spill Kit
- Storm Drain
- Recycled Process Water
- Drainage Basin Boundary
- Property Line
- Area Boundary

Site Summary:

Total Area 94.6± AC
Impervious Area 67.8± AC

Drainage Basins Breakdown:

Basin 1 19.8± AC
Basin 2 17.8± AC
Basin 13 2.8± AC
Basin 14 6.6± AC
Basin 16
Basin 19 5.7± AC
Basin 20 1.8± AC
Basin R1 5.1± AC
Basin R2 0.7± AC
Basin R3 0.3± AC



Catch Basin Layout

Company - Schnitzer Steel Industries Inc.

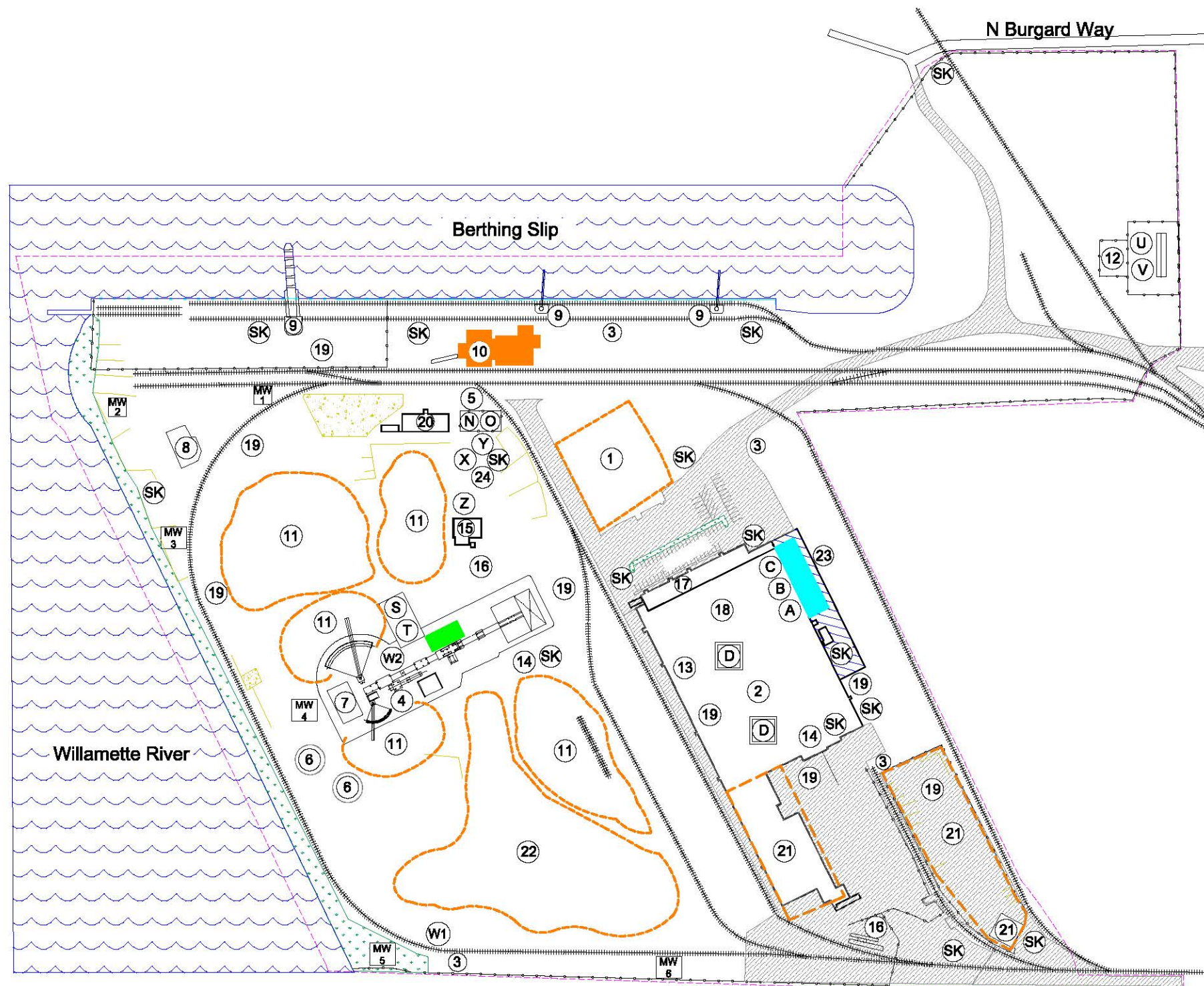
Address - 12005 N. Burgard Road

City - Portland State - OR

County - Multnomah Date - 2/16/2012

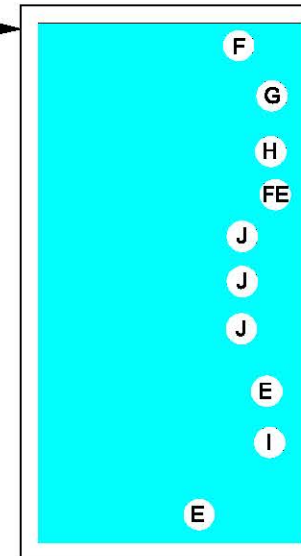
Drawn By - BAS Approved By - GWS

Project No - S058-11-04

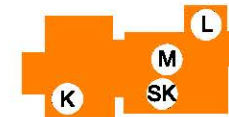


Containment Area:
8.5' X 50' X 0.4'
Deep

Inset



Inset



Inset



Not To Scale

Notes:
1. Locations of all above ground improvements are approximate.
2. The facility is dirt except where otherwise noted.

KEY

- | | |
|---|---|
| (A) 55-Gallon Antifreeze Drums (2) | (7) Shredder Process Settling Pond |
| (B) 55-Gallon Motor/Transmission Oil Drums (4) | (8) Treatment Facility |
| (C) 275-Gallon Antifreeze AST | (9) Loading/Unloading Crane |
| (D) 80-Gallon High Dielectric Fluid AST (3) | (10) Shearer Equipment |
| (E) 55-Gallon Various Oil Drums | (11) Scrap Metal Area |
| (F) 1,000-Gallon Used Oil AST | (12) Electrical Substation |
| (G) 300-Gallon Used Oil AST | (13) ASR Storage |
| (H) 300-Gallon Water/Used Oil AST | (14) Inadvertent Hazardous Material Storage |
| (I) 300-Gallon Heavy Lube Oil AST W/Pump and Lube Guns on Top | (15) Truck Wash |
| (J) 550-Gallon Motor/Hydraulic Oil AST W/Lube Guns (3) | (16) Scale |
| (K) 5,230 Hydraulic Oil AST | (17) Offices |
| (L) 420-Gallon Hydraulic Oil AST | (18) Maintenance Area |
| (M) 300-Gallon Lube Oil AST | (19) Material Loading |
| (N) 323-Gallon Dielectric Fluid AST | (20) Lunch Room |
| (O) 730-Gallon Dielectric Fluid AST | (21) Non-ferrous Storage |
| (P) 450-Gallon Hydraulic Fluid (3) | (22) ASR Pile |
| (Q) 230-Gallon Hydraulic Oil AST | (23) Oil Loading/Unloading Area |
| (R) 140-Gallon Gear Oil AST | (24) Fuel Loading/Unloading Area |
| (S) 250-Gallon Dielectric Fluid AST | (SK) Spill Kit |
| (T) 150-Gallon Dielectric Fluid AST | (MW) Monitoring Well |
| (U) 2,229-Gallon Dielectric Fluid AST | (Water) Water |
| (V) 2,872-Gallon Dielectric Fluid AST | (Landscape) Landscape |
| (W) Water Well Location/Number | (Concrete) Concrete |
| (X) 1,000-Gallon Diesel Fueling AST | (Asphalt) Asphalt |
| (Y) 1,000-Gallon Gasoline AST | (Awning) Awning |
| (Z) 1,000-Gallon Diesel AST | (Secondary Containment) Secondary Containment |
| (1) Equipment Storage Area | (Concrete Walls) Concrete Walls |
| (2) Building B | (Approximate Site Boundary) Approximate Site Boundary |
| (3) Oil/Water Separator | (Area Boundary) Area Boundary |
| (4) Shredder | (Chain-link Fence) Chain-link Fence |
| (5) Shearer Substation | (Dock Fence) Dock Fence |
| (6) Storage Tank | (Railroad Tracks) Railroad Tracks |



1979 E. Broadway Rd.
Tempe, Arizona 85282
480.784.4821
www.envirosure.com

Facility Layout

Company - Schnitzer Steel Industries Inc.

Address - 12005 N. Burgard Road

City - Portland

State - OR

County - Multnomah

Date - 2/16/2012

Drawn By - BAS

Approved By - GWS

Project No - S058-11-04

Appendix 8
EPA Water Body Reports



State: [Oregon](#)
Waterbody ID: OR_1227618456580_0_24.8
Other ID: OR1227618456580_0_24.8
Location: Crosses Subbasins: 17080001
State Waterbody Type: River
EPA Waterbody Type: Rivers and Streams
Water Size: 24.8
Units: miles
Watershed Name: [Lower Columbia-Sandy Lower Willamette](#)

2006 Water Body Report for Willamette River: Mm 0-24.8

Water Quality Assessment Status for Reporting Year 2006 The overall status of this water body is Impaired.

<u>Designated Use</u>	<u>Designated Use Group</u>	<u>Status</u>
Aesthetic Quality	Aesthetic Value	Good
Anadromous Fish Passage	Fish, Shellfish, And Wildlife Protection And Propagation	Impaired
Aquatic Life	Fish, Shellfish, And Wildlife Protection And Propagation	Impaired
Drinking Water	Public Water Supply	Impaired
Fishing	Aquatic Life Harvesting	Impaired
Resident Fish And Aquatic Life	Fish, Shellfish, And Wildlife Protection And Propagation	Impaired
Water Contact Recreation	Recreation	Impaired

Causes of Impairment for Reporting Year 2006

<u>Cause of Impairment</u>	<u>Cause of Impairment Group</u>	<u>Designated Use(s)</u>	<u>State TMDL Development Status</u>
2,3,7,8-Tetrachlorodibenzofuran	Dioxins	Anadromous Fish Passage	TMDL needed
2,4,5-Tp (Silvex)	Pesticides	Drinking Water	TMDL needed
Aldrin	Pesticides	Fishing	TMDL needed
Arsenic	Metals (other than Mercury)	Anadromous Fish Passage	TMDL needed
Benzo[a]anthracene	Toxic Organics	Anadromous Fish Passage	TMDL needed
Benzo[a]pyrene (PAHs)	Toxic Organics	Anadromous Fish Passage	TMDL needed
Biological Criteria	Cause Unknown - Impaired Biota		TMDL needed
Chlorpyrifos	Pesticides	Anadromous Fish Passage	TMDL needed
Chromium, Hexavalent	Metals (other than Mercury)	Anadromous Fish Passage	TMDL needed
Chrysene	Toxic Organics	Anadromous Fish Passage	TMDL needed
Copper	Metals (other than Mercury)	Anadromous Fish Passage	TMDL needed

DDE	Pesticides	Anadromous Fish Passage, Fishing	TMDL needed
DDT	Pesticides	Anadromous Fish Passage, Fishing	TMDL needed
Dieldrin	Pesticides	Fishing	TMDL needed
Endosulfan	Pesticides	Anadromous Fish Passage	TMDL needed
Endrin	Pesticides	Anadromous Fish Passage	TMDL needed
Fecal Coliform	Pathogens	Water Contact Recreation	TMDL needed
Fluoranthene	Toxic Organics	Anadromous Fish Passage	TMDL needed
Guthion	Pesticides	Anadromous Fish Passage	TMDL needed
Habitat Alterations (Other Than Flow)	Habitat Alterations	Anadromous Fish Passage	TMDL needed
Iron	Metals (other than Mercury)	Aquatic Life	TMDL needed
Lead	Metals (other than Mercury)	Anadromous Fish Passage	TMDL needed
Lindane	Pesticides	Anadromous Fish Passage	TMDL needed
Malathion	Pesticides	Anadromous Fish Passage	TMDL needed
Manganese	Metals (other than Mercury)	Anadromous Fish Passage, Drinking Water	TMDL needed
Mercury	Mercury	Anadromous Fish Passage	TMDL needed
Metals	Metals (other than Mercury)	Anadromous Fish Passage	TMDL needed
Methoxychlor	Pesticides	Anadromous Fish Passage	TMDL needed
Nickel	Metals (other than Mercury)	Anadromous Fish Passage	TMDL needed
Organic Enrichment/Low Dissolved Oxygen	Organic Enrichment/Oxygen Depletion	Resident Fish And Aquatic Life	TMDL needed
Other Pollutants/Encroachment	Habitat Alterations	Drinking Water	TMDL needed
Parathion	Pesticides	Anadromous Fish Passage	TMDL needed
Pathogens	Pathogens	Anadromous Fish Passage	TMDL needed
Pentachlorophenol (PCP)	Toxic Organics	Anadromous Fish Passage	TMDL needed
Polychlorinated Biphenyls (PCBs)	Polychlorinated Biphenyls (PCBs)	Fishing	TMDL needed
Polycyclic Aromatic Hydrocarbons (PAHs) (Aquatic Ecosystems)	Toxic Organics		TMDL needed
Sedimentation/Siltation	Sediment	Resident Fish And Aquatic Life	TMDL needed

Selenium	Metals (other than Mercury)	Aquatic Life	TMDL needed
Trivalent Arsenic (Arsenic III)	Metals (other than Mercury)	Aquatic Life	TMDL needed
Zinc	Metals (other than Mercury)	Anadromous Fish Passage	TMDL needed
pH	pH/Acidity/Caustic Conditions	Anadromous Fish Passage	TMDL needed

Probable Sources Contributing to Impairment for Reporting Year 2006

No probable source data have been reported to EPA for this water body.

TMDLs That Apply to this water body

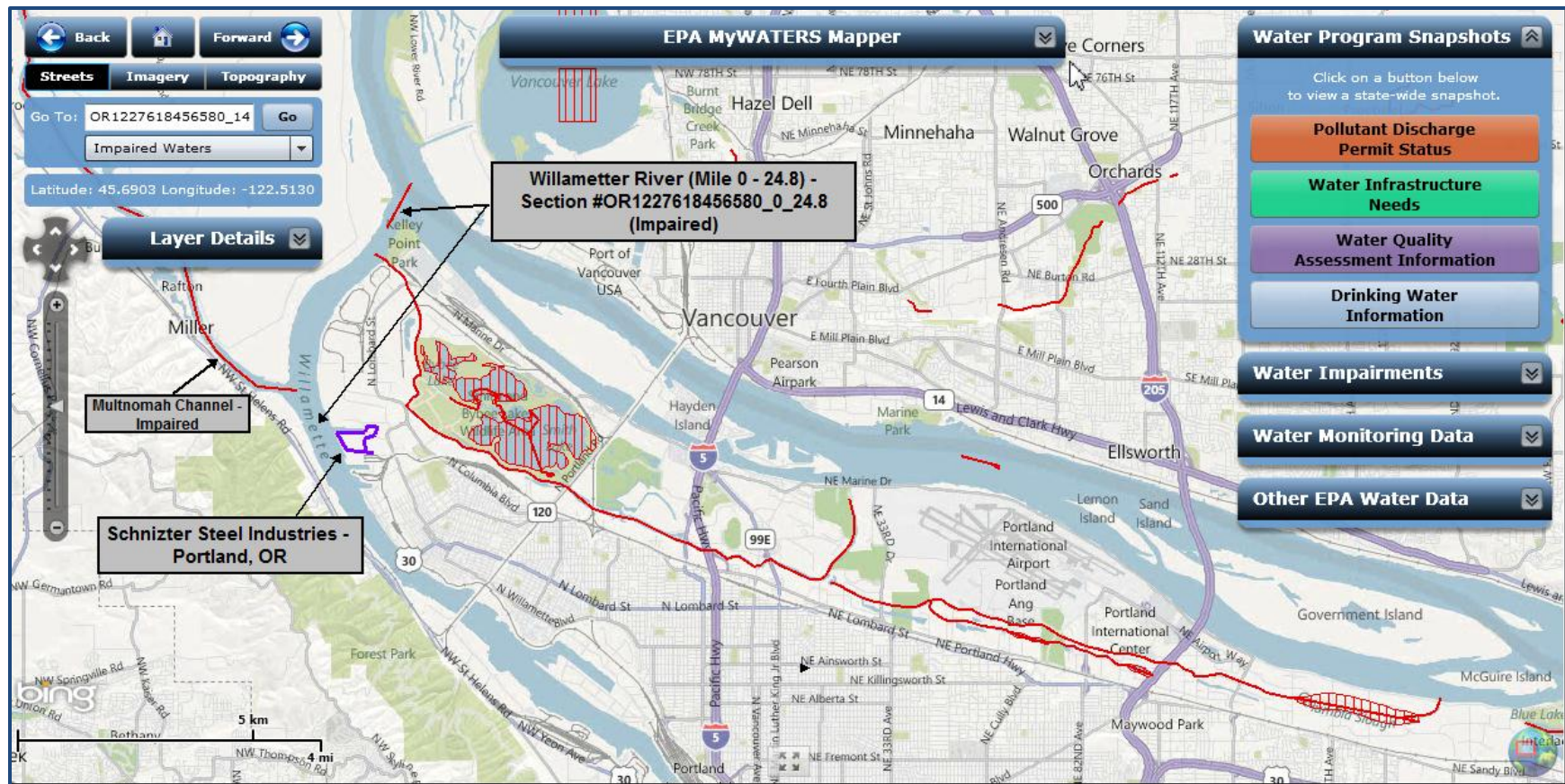
<u>TMDL Document Name</u>	<u>TMDL Date</u>	<u>TMDL Pollutant Description</u>	<u>TMDL Pollutant Source Type</u>	<u>Cause(s) of Impairment Addressed</u>
Willamette Basin Tmdl	Sep-29-2006	Biochemical Oxygen Demand (BOD)	Nonpoint Source	Mercury; Temperature; Fecal Coliform
Willamette Basin Tmdl	Sep-29-2006	DDT	Nonpoint Source	Fecal Coliform; Mercury; Temperature
Willamette Basin Tmdl	Sep-29-2006	Dieldrin	Nonpoint Source	Fecal Coliform; Mercury; Temperature
Willamette Basin Tmdl	Sep-29-2006	Escherichia Coli (E. Coli)	Point/Nonpoint Source	Fecal Coliform; Mercury; Temperature
Willamette Basin Tmdl	Sep-29-2006	Mercury	Point/Nonpoint Source	Temperature; Fecal Coliform; Mercury
Willamette Basin Tmdl	Sep-29-2006	Temperature	Point/Nonpoint Source	Temperature; Mercury; Fecal Coliform
Willamette Basin Tmdl	Sep-29-2006	Turbidity	Nonpoint Source	Mercury; Fecal Coliform; Temperature

Previous Causes of Impairments Now Attaining All Uses

No causes of impairment are recorded as attaining all uses for this water body.

Last updated on Monday, February 06, 2012

EPA Water Body Map for Willamette River and Schnitzer Steel - Portland



Appendix 9

Stormwater Pollution Controls and BMPs (Best Management Practices)

Employee Training BMPs	Frequency	Current	Improvement Needed	Future	Implementation Date
Each employee will receive an orientation to the SWPCP and Stormwater Program within one month of hiring and annually thereafter.	On Going	✓			
Scrap Acceptance Policy BMPs	Frequency	Current	Improvement Needed	Future	Implementation Date
Ensure strict compliance with this policy by all employees and contractors to prevent the introduction of potential pollutants onto SSI's property and potential pollution of stormwater runoff.	On Going	✓			
Inspection/Recordkeeping BMPs	Frequency	Current	Improvement Needed	Future	Implementation Date
Environmental Manager or designate will inspect designated equipment, facility areas, stormwater outfalls as required.	Monthly	✓			
Any appropriate action necessary to be taken in response to deficiencies noted during a visual inspection will be taken immediately. If immediate action is not feasible, the SWPCP team will discuss the implementation schedule of the necessary action(s).	Immediately	✓			
Maintain accurate storm sewer drainage and piping layouts.	On Going	✓			
Review the Corporate Environmental Policy for applicability and adequacy and revise as necessary.	Annually	✓			
Visually inspect stormwater outfall discharges for color, foam, sheen, and other visible evidence of potential problems.	Monthly	✓			
Establish and maintain a facility-wide Spill Prevention and Response procedures.	On Going	✓			
Good Housekeeping BMPs	Frequency	Current	Improvement Needed	Future	Implementation Date
Identify and control all on-site sources of dust to minimize stormwater contamination from the deposition of dust on areas exposed to precipitation.	On Going	✓			
Keep all solid waste dumpsters under cover or fit with a lid that must remain closed when not in use.	On Going	✓			
Utilize a wet-vacuum sweeper to remove accumulated pollutants from paved surfaces.	Weekly	✓			
Ensure hazardous substance containers are properly identified, labeled and stored in designated areas.	On Going	✓			
Ensure procedures are established and followed for managing potentially hazardous materials inadvertently received.	On Going	✓			
Provide spill response kits in areas where spills are most prone to occur, such as loading/unloading areas, fueling areas and chemical storage areas.	On Going	✓			
Provide all visitors to the facility with emergency contact telephone numbers and spill response procedures.	On Going	✓			
Preventative Maintenance BMPs	Frequency	Current	Improvement Needed	Future	Implementation Date
Inspect all equipment and vehicles during monthly site inspections for leaking fluids such as oil, antifreeze, etc. Take leaking equipment and vehicles out of service or prevent leaks from spilling on the ground until repaired.	Monthly	✓			
Ensure maintenance of forklifts or other industrial equipment is done in designated areas on an impervious surface. Conduct maintenance indoors or under overhead coverage if outdoors, if possible. Use drip pans or absorbents to prevent leaks from contaminating stormwater runoff.	As Necessary	✓			
Ensure that scrap equipment stored outdoors has been properly drained of oils or other fluids which may contribute to stormwater contamination. Store scrap equipment under overhead coverage or tarps, if possible.	On Going	✓			
Immediately clean up spills and leaks (e.g., using absorbents, vacuuming, etc.) to prevent the discharge of pollutants.	Immediately	✓			
Maintain and repair existing pavement, as necessary, to minimize erosion and stormwater runoff pollution.	On Going	✓			
Inspect and clean out oil/water separators, catch basins and sumps on a regular basis or as necessary. Dispose of contents with a licensed third-party contractor.	As Necessary	✓			
Spill Prevention and Cleanup BMPs	Frequency	Current	Improvement Needed	Future	Implementation Date
Locate spill kits within 25 feet of all stationary fueling stations, fuel transfer stations, and mobile fueling units.	On Going	✓			
Use drip pans or equivalent containment measures during all petroleum transfer operations.	On Going	✓			
Locate materials, equipment, and activities so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to protected areas).	On Going	✓			
Use drip pans and absorbents under or around leaky vehicles and equipment or store indoors where feasible. Drain fluids from equipment and vehicles prior to on-site storage or disposal.	On Going	✓			
Maintain a spill log that includes the following information for chemical and petroleum spills: date, time, amount, location, and reason for spill; date/time clean-up completed, notifications made and staff involved.	On Going	✓			
Apply dry cleanup methods (e.g., absorbent) for spilled or leaked liquids in processing and maintenance areas.	On Going	✓			

Chemicals Storage BMPs	Frequency	Current	Improvement Needed	Future	Implementation Date
Store all chemical liquids, fluids, and petroleum products, on an impervious surface that is surrounded with a containment berm or dike that is capable of containing 10% of the total enclosed tank volume or 110% of the volume contained in the largest tank, whichever is greater.	On Going	✓			
Ensure all chemical storage tanks 55-gallons (200 liters) or greater are stored on secondary containment pallets or units or with secondary containment areas.	On Going	✓			
Ensure all ASTs and related piping systems are inspected on a regular basis for cracks, leaks or deterioration. Replace parts or ASTs as necessary. Use corrosion inhibitors on outside metal storage tanks to minimize rusting, corrosion and leaking of chemicals.	Quarterly	✓			
Inspect all secondary containment units or structures for signs of damage that could potentially leak chemicals. Repair or replace as necessary.	Quarterly	✓			
Prevent precipitation from accumulating in containment areas with a roof or equivalent structure or include a written plan on how it will manage and dispose of accumulated water if a containment area cover is not practical.	On Going	✓			
Minimize storage of chemicals near catch basin sumps, stormwater drains or stormwater outfalls.	On Going	✓			
Scrap Metal and ASR Storage BMPs	Frequency	Current	Improvement Needed	Future	Implementation Date
Conduct inbound or pre-acceptance screening of incoming scrap material to minimize acceptance of polluted scrap source materials. Establish a Material Acceptance Policy to which prohibits unacceptable materials.	On Going	✓			
Minimize surface runoff contact with aluminum turnings piles by establishing and maintaining a containment area constructed of concreted, asphalt or other impermeable material for turnings exposed to cutting fluids. Use overhead coverage if stored outdoors.	On Going	✓			
Treat runoff from aluminum turnings area in Recycle Basin R2 with chemical or mechanical oil-water separator. Pump sump out as needed and dispose of materials with licensed third party contractor. Use oil absorbents around turning processing area in shop.	On Going	✓			
ASR should be store on an impervious surface in a designated, contained area. Use berms or silt fencing to keep ASR from migrating to other areas and to prevent contaminated stormwater runoff from ASR storage areas.	On Going	✓			
Provide covered bin storage for lightweight or smaller materials. Provide covers for bins if stored outdoors. Conduct inspections on bins to ensure they are load worthy. Replace if necessary.	On Going	✓			
Maintain and use mercury spill kits for any release of mercury from switches, anti-lock brake systems, and switch storage areas.	On Going	✓			
Battery Storage BMPs	Frequency	Current	Improvement Needed	Future	Implementation Date
Establish procedures for accepting scrap lead-acid batteries which includes proper handling, storage and disposal or recycling to minimize contact with precipitation or runoff.	On Going	✓			
Ensure scrap lead-acid batteries are stored on or within secondary containment. Store batteries indoors or provide overhead coverage for outdoor storage areas.	On Going	✓			
Isolate lead-acid battery storage away from metals storage areas in case of acid leaks into metal piles causing corrosion of metals. Use berming around metal storage areas if necessary.	On Going	✓			
Separate lead-acid batteries from other types of scrap batteries to ensure chemical reactions from leaks of incompatible materials are avoided.	On Going	✓			
Structural Source Control BMPs	Frequency	Current	Improvement Needed	Future	Implementation Date
Use grading, berming, or curbing to prevent runoff of contaminated flows and divert run-on away from manufacturing, processing, and material storage areas (including loading and unloading, storage, disposal, cleaning, maintenance, and fueling operations).	On Going	✓			
Perform all cleaning operations indoors, under cover, or in bermed areas that prevent stormwater runoff and run-on and also that capture any overspray.	On Going	✓			
Block, plug or cover storm drains that receive runoff from areas where fueling occurs, or where there is potential for an oil spill.	As Necessary	✓			
Clean catch basins when the depth of debris reaches 60% of the sump depth. In addition, the Permittee must keep the debris surface at least 6 inches below the outlet pipe.	Quarterly	✓			
Ensure that all wash water drains to a collection system that directs the wash water to further treatment or storage and not to the stormwater drainage system.	On Going	✓			
Employ oil/water separators, booms, skimmers or other methods to eliminate or minimize oil and grease contamination of stormwater discharges.	On Going	✓			
Ensure run-off from shredder residues is diverted away from outfalls and into shredder process water.	On Going	✓			

Stormwater Treatment BMPs	Frequency	Current	Improvement Needed	Future	Implementation Date
Utilize sediment control BMPs such as detention or retention ponds or traps, vegetated filter strips, bioswales, or other permanent sediment control BMPs to minimize sediment loads in stormwater discharges.	On Going	✓			
Utilize filtration BMPs to remove solids from catch basins, sumps or other stormwater collection and conveyance system components (filter socks, modular canisters, sand filtration, centrifugal separators, etc.).	On Going	✓			
Basin 2's stormwater is routed through a series of filters and then stored in a 1 million gallon tank to allow for settling.	On Going	✓			
Basins 13-16 will be routed into the filter treatment and storage process.				✓	Upon DEQ Approval
Inspect facility perimeter during monthly site inspection for evidence of unauthorized non-stormwater discharges. Ensure that no contaminated process, wash-down, or otherwise generated unauthorized non-stormwater is discharged off-site.	Monthly	✓			
Erosion & Sediment Control BMPs	Frequency	Current	Improvement Needed	Future	Implementation Date
Pave interior and exterior approaches to site entrances with asphalt, concrete or equivalent to reduce the potential for soil to be transported offsite by vehicles or equipment.	Weekly	✓			
Utilize and maintain well-established vegetative cover to reduce erosion from shoulders of the concrete or asphalt covering wherever exposed soil is present along the side of the road.	On Going	✓			
Enforce speed limit at entrances to the facility to 15 mph to reduce dust emissions.	On Going	✓			
Use catch basin filter inserts in catch basins in the immediate area around the entrances of the facility.	On Going	✓			
Verify with monthly inspections by a Certified Erosion and Sediment Control Lead (or equivalent) that the above BMPs are functional and appropriately maintained/implemented. Inspections will be documented on a standard form that will identify deficiencies and associated corrective actions.	Monthly	✓			
Using water spray trucks, wet the roads and unpaved operational areas during dusty, dry, and warm days to prevent dust emissions.	As Necessary	✓			
Barge Loading/Unloading BMPs	Frequency	Current	Improvement Needed	Future	Implementation Date
Deploy containment booms around scrap and tender barges to provide containment measures for floating liquids and solids which may potentially enter the waterway during loading/unloading.	On Going	✓			
Utilize scrap deflectors at all times during barge loading/unloading activities. Scrap loading/unloading crane movements will cross scrap metal deflectors.	On Going	✓			
Ensure barges will be kept close and snug to the dock structure to reduce gaps where scrap could enter the waterway.	On Going	✓			
When feasible, place cranes/loaders onto barges to pre-stage scrap material for safer loading/unloading.	As Feasible	✓			
During loading/unloading activities, rotate scrap barges or have on-board scrap moved prior to unloading as necessary to avoid excessive barge listing, maintain stable buoyancy, and reduce crane/loader movement needed to unload material.	As Necessary	✓			
Place nets between barges and the dock to catch any scrap that may come loose during unloading. Ensure nets will be cleaned of any scrap metal before they are removed.	On Going	✓			
Truck and Railcar Loading/Unloading BMPs	Frequency	Current	Improvement Needed	Future	Implementation Date
Minimize pollutants in discharges from truck or railcar loading and unloading areas of oils or other liquid chemicals with dry-cleanup, containment or diversionary structures to minimize contact with precipitation or runoff. Ensure spill kits are located nearby that are adequately supplied.	On Going	✓			
Ensure solid waste spills during loading or unloading are picked, shoveled, vacuumed or swept up and can be transferred to designated storage areas or solid waste containers.	As Necessary	✓			
Do not leave area unattended at any time during materials loading/unloading or transfer activities. Assure company representative is present at all times.	As Necessary	✓			
Ensure all loading or unloading of trucks or railcars is accomplished by licensed or approved persons.	On Going	✓			
Minimize loading and unloading of trucks or railcars during precipitation events unless overhead coverage is provided.	As Necessary	✓			
Fuel Dispensing BMPs	Frequency	Current	Improvement Needed	Future	Implementation Date
Avoid liquid materials transfer or fuel dispensing activities during precipitation events unless overhead coverage is provided. Ensure spill material response kits are nearby in case of accidental spills or leaks. Dispose of all spill response materials appropriately.	On Going	✓			
Do not lock shut-off fueling nozzles in the open position. Do not "top off" tanks being refueled. Install high level alarms where practicable to minimize tank overflow and spillage.	On Going	✓			
Ensure all pipe and flange connections are secure and not leaking during loading/unloading of fuels, oils or other liquids. Use drip pans and dry absorbents to prevent possible stormwater contamination.	On Going	✓			
Vehicle/Mobile Equipment Maintenance BMPs	Frequency	Current	Improvement Needed	Future	Implementation Date
Adopt a scheduled maintenance program, based on manufacturer's recommendations, for all vehicles and operational equipment.	On Going	✓			
Where feasible, conduct vehicle and mobile equipment maintenance indoors or under overhead coverage, if conducted outdoors.	As Feasible	✓			
Utilize drip pans or absorbent materials to contain leaks from stored vehicles or equipment.	On Going	✓			
Inspect stationary equipment for evidence of leaks or maintenance issues which may result in leaks. Utilize absorbent materials to soak up leaks from stationary equipment until maintenance can be performed.	On Going	✓			
Rail BMPs	Frequency	Current	Improvement Needed	Future	Implementation Date
During any replacement of rail in the yard, use a less-toxic preservative; avoid organic toxics such as creosote and pentachlorophenol. Or use concrete ties or other non-wooden ties.				✓	As projects are approved in the future
During maintenance, do not discard debris or waste liquids along the tracks or in railroad yards.	On Going	✓			

Appendix 10

Monthly Inspection Reports; Spill Kit Inspection Forms

1200-Z INDUSTRIAL STORMWATER MONTHLY INSPECTION REPORT

Inspections must be conducted by a person with the knowledge and skills to assess conditions and activities that could impact stormwater quality at the facility, and evaluate the effectiveness of best management practices required by this permit. Retain a copy of the completed and signed form in accordance with Permit Schedule B(1).

FACILITY NAME: Schnitzer Steel Industries, Inc. – Portland, OR		INSPECTION TIME:	DATE:
WEATHER INFORMATION: <ul style="list-style-type: none"> Description of Weather Conditions (e.g., sunny, cloudy, raining, snowing, etc.): <hr/> <hr/> Was stormwater (e.g., runoff from rain or snowmelt) flowing at outfalls and/or discharge areas shown on the Site Map during the inspection: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comments: <hr/> <hr/> 			
1. STORMWATER POLLUTION CONTROL PLAN & SITE MAP REVIEW			
SWPCP and Site Map: Have a copy of the SWPCP and site map with you during the inspection so that you can ensure they are current and accurate. Use it as an aide in recording the location of any issues you identify during the inspection. <ul style="list-style-type: none"> Is the Site Map current and accurate? Is the SWPCP inventory of activities, materials and products current? Are the potential pollutant sources reflected in the SWPCP accurate? 	Yes	No	Findings and Remedial Action Documentation: Describe any findings below and the schedule for remedial action completion including the date initiated and date completed or expected to be completed.

2. CONTAINMENT/MINIMIZE EXPOSURE - BEST MANAGEMENT PRACTICES			
SWPCP Best Management Practices Review for Containment/Minimize Exposure: <ul style="list-style-type: none"> Are fixed fueling, manufacturing, treatment, storage, and disposal areas kept under cover? To the extent possible, is vehicle equipment maintenance activities are conducted inside a fully enclosed, concrete-floored building? Are spill kits available and properly stocked? Are all chemical containers either indoors or within secondary containment or both? Are all activities and storage areas that are most prone to potentially adversely affecting stormwater quality maintained under cover, either inside of the maintenance building, or in a roofed concrete secondary containment structure? 	Yes	No	Findings and Remedial Action Documentation: Describe any findings below and the schedule for remedial action completion including the date initiated and date completed or expected to be completed.

3. OIL & GREASE - BEST MANAGEMENT PRACTICES			
SWPCP Best Management Practices Review for Containment/Minimize Exposure: <ul style="list-style-type: none"> Are all four oil/water separators in place and functioning properly? Date of last oil/water separator clean-out? _____ Are all storm drain catch basins fitted with inverted outflow pipes in place and functioning properly? Where necessary, are drip pans placed beneath vehicles that show signs of leaking? Where necessary, are oil absorbent socks and pillows are also used around leaky equipment? Have soils that have been impacted by small spills been removed and given proper disposal? 	Yes	No	Findings and Remedial Action Documentation: Describe any findings below and the schedule for remedial action completion including the date initiated and date completed or expected to be completed.

4. WASTE CHEMICAL & MATERIAL DISPOSAL - BEST MANAGEMENT PRACTICES			
SWPCP Best Management Practices Review for Containment/Minimize Exposure: <ul style="list-style-type: none"> In general, is the SSI Scrap Acceptance Policy being followed? Where unacceptable items are inadvertently accepted, are they stored in compatible containers, stored in the proper location, and labeled appropriately? Are licensed third party contractors used for waste disposal? 	Yes	No	Findings and Remedial Action Documentation: Describe any findings below and the schedule for remedial action completion including the date initiated and date completed or expected to be completed.

5. EROSION & SEDIMENT CONTROL - BEST MANAGEMENT PRACTICES			
SWPCP Best Management Practices Review for Containment/Minimize Exposure: <ul style="list-style-type: none"> Where applicable, are exposed areas vegetated or graveled? Are the vegetated areas, bio-swales, detention pond in place and functioning properly? Has vegetation been allowed to take root in unpaved areas along the water banks of pond and bio-swales? Where appropriate, are straw bales and catch basin inserts used to minimize the influx of sediment into stormwater catch basins and bioswales Date of last catch basin insert change-out: _____ Date of last straw bale change-out: _____ Are drain covers used in areas where necessary? 	Yes	No	Findings and Remedial Action Documentation: Describe any findings below and the schedule for remedial action completion including the date initiated and date completed or expected to be completed.

6. DEBRIS CONTROL - BEST MANAGEMENT PRACTICES			
SWPCP Best Management Practices Review for Containment/Minimize Exposure: <ul style="list-style-type: none"> Are screens, booms, settling ponds, employed and functioning properly? Are accessible areas swept using a vacuum/broom sweeper weekly? Date of last surface sweeping: _____ Are accessible areas swept using a magnetic collector monthly? Date of last surface sweeping: _____ Are trash receptacles kept in-doors or under cover? 	Yes	No	Findings and Remedial Action Documentation: Describe any findings below and the schedule for remedial action completion including the date initiated and date completed or expected to be completed.

7. DUST GENERATION & VEHICLE TRACK-OFF - BEST MANAGEMENT PRACTICES			
SWPCP Best Management Practices Review for Containment/Minimize Exposure: <ul style="list-style-type: none"> Are site entrances stabilized with hard surfacing? Is a well-established vegetative cover in place and appropriate on the shoulders of the concrete. Is the site speed limit set to 15 mph? 	Yes	No	Findings and Remedial Action Documentation: Describe any findings below and the schedule for remedial action completion including the date initiated and date completed or expected to be completed.

8. HOUSEKEEPING - BEST MANAGEMENT PRACTICES			
SWPCP Best Management Practices Review for Containment/Minimize Exposure: <ul style="list-style-type: none"> Are chemical containers properly labeled, kept closed, maintained in appropriate storage areas? Are chemical containers free of leaks and container damage? Are chemicals properly handled? Are work areas properly maintained, neat, & orderly? Are external surfaces and area free of excessive contaminant/debris/sediment/dust buildup? 	Yes	No	Findings and Remedial Action Documentation: Describe any findings below and the schedule for remedial action completion including the date initiated and date completed or expected to be completed.

9. SPILL PREVENTION & RESPONSE PROCEDURES - BEST MANAGEMENT PRACTICES			
SWPCP Best Management Practices Review for Containment/Minimize Exposure: <ul style="list-style-type: none"> Is the SSI SPCC plan up-to date and appropriately implemented? Are proper spill clean-up procedures followed? Are spill kits available at critical locations? Are only dry absorbents available? Is there an appropriate stock of absorbents available on-site? 	Yes	No	Findings and Remedial Action Documentation: Describe any findings below and the schedule for remedial action completion including the date initiated and date completed or expected to be completed.

10. SECTOR N SPECIFIC - BEST MANAGEMENT PRACTICES			
SWPCP Best Management Practices Review for Containment/Minimize Exposure: <ul style="list-style-type: none"> Are surfaces properly grading to divert runoff from storage areas? Are turnings stored in a covered container or in-doors? Are appropriate DEI's completed for all pieces of mobile equipment? Are lead-acid batteries stored in-doors? No leaking or cracked lead-acid batteries are accepted? Are chemical transferred done in-doors or where diversionary controls are in place? Are outdoor secondary containment's covered to prevent contact with stormwater? Are scrap acceptance signs at the gate clearly marked and readable? Is vehicle washing only conducted on the wash pad? Are fuel tanks prevented from being topped off? 	Yes	No	Findings and Remedial Action Documentation: Describe any findings below and the schedule for remedial action completion including the date initiated and date completed or expected to be completed.

11. EMPLOYEE TRAINING - BEST MANAGEMENT PRACTICES			
SWPCP Best Management Practices Review for Containment/Minimize Exposure: <ul style="list-style-type: none"> Date of last employee SWPCP training: _____ Date of last SWPPP Team Meeting: _____ Previous training was appropriate? 	Yes	No	Findings and Remedial Action Documentation: Describe any findings below and the schedule for remedial action completion including the date initiated and date completed or expected to be completed.

12. CORRECTIVE ACTION AND SWPCP MODIFICATIONS DESCRIPTIONS: Additional space to describe inspection findings and corrective actions if needed. Provide brief explanation of the general location and the rationale for the additional or different BMPs.

SWPCP Best Management Practices Review for Containment/Minimize Exposure:

- Are there any corrective actions necessary based on the answers of this inspection sheet. If so, please list them to the right.
- Are there any other modifications to the SWPCP that are currently necessary. If so, please list them to the right.

Yes No

Findings and Remedial Action Documentation:

Describe any findings below and the schedule for remedial action completion including the date initiated and date completed or expected to be completed.

13. STORMWATER SAMPLES – Two samples must be taken before December 31, and Two samples must be taken after January 1st.

OUTFALL NO.	Date of Sample #1	Date of Sample #2	Date of Sample #3	Date of Sample #4
1				
2				
13				
14				

14. VISUAL INSPECTIONS – Every month, each outfall must be monitored monthly for flow, visible sheens, floating solids, etc.

OUTFALL	Flow (gpm)	Sheen Present?	Floating Solids Visible?	Storm Drain Functional?
1				
2				
13				
14				
15				
16				
19				
20				

15. CERTIFICATION

Inspector - Certification: This section must be completed by the person who conducted the site inspection prior to submitting this form to the person with signature authority or a duly authorized representative of that person.

- ☐ The facility is in compliance with the terms and conditions of the SWPCP and the Industrial Stormwater General Permit.
- ☐ The facility is out of compliance with the terms and conditions of the SWPCP and the Industrial Stormwater General Permit. This report includes the remedial actions that must be taken to meet the requirements of the SWPCP and permit, including a schedule of implementation of the remedial actions.

"I certify that this report is true, accurate, and complete, to the best of my knowledge and belief."

Inspector's Name – Printed	Inspector's Signature	Inspector's Title	Date

SCHNITZER STEEL INDUSTRIES, INC., BURGARD FACILITY SWPCP**Monthly Spill Kit Inspection Form****MONTH:****YEAR:****INSPECTOR:**

Spill Kit #	Location	Major Spills in Area During the Month?		Seal Broken?		Inventory Needed?		Additional Comments/Corrective Actions
1	West Side of Dock	Yes	No	Yes	No	Yes	No	
2	Center of Dock	Yes	No	Yes	No	Yes	No	
3	East Side of Dock	Yes	No	Yes	No	Yes	No	
4	Scale House	Yes	No	Yes	No	Yes	No	
5	Non-Ferrous Bldg.	Yes	No	Yes	No	Yes	No	
6	ASR Loading Area	Yes	No	Yes	No	Yes	No	
7	Fuel Tanks	Yes	No	Yes	No	Yes	No	
8	Bay 31	Yes	No	Yes	No	Yes	No	
9	Oil/Antifreeze Tanks	Yes	No	Yes	No	Yes	No	
10	Rejected Items Collection Bldg.	Yes	No	Yes	No	Yes	No	
11	Truck Waiting Area	Yes	No	Yes	No	Yes	No	
12	Gate 5 - Security	Yes	No	Yes	No	Yes	No	

Appendix 11

Employee Training Record Form

Appendix 12
SWPCP Annual Review Form

SWPCP ANNUAL REVIEW FORM

Schnitzer Steel Industries, Inc.
12005 North Burgard Road
Portland, Oregon

[illegible]

Appendix 13

1200-Z Discharge Monitoring Report Form

Industrial Stormwater Discharge Monitoring Report - 1200-Z Permit

Permittee Legal Name:		ODEQ File No./Facility ID:	
Facility Common Name:		Reporting Period: July 1,	to June 30,
Facility Location:		Laboratory Name:	
County:		Laboratory ORELAP #:	



Monitor for the following pollutants at sampling point(s) specified in your SWPCP. Add more sheets if necessary (e.g., if more than 4 samples are collected per pollutant or facility has more than 4 sampling points). **You MUST also attach a copy of laboratory results sheet(s) and associated QA/QC information to this form.**

Name or Number of Sampling Point(s) (group data per sampling point)	Sample Date	pH **	Suspended Solids, Total **	Oil and Grease, Total **	Copper, Total	Lead, Total	Zinc, Total	E. coli *	
		s.u.	mg/L	mg/L	mg/L	mg/L	mg/L	counts/100 ml	
									<p>* Only applies to landfills accepting septage/biosolids and sewage treatment plants.</p> <p>** Effluent limits for these parameters apply to some industries - see permit, Schedule A.7.</p> <p>Note 1: Submit this report to the appropriate DEQ regional or agent offices (see below) annually by July 31st. The report must contain the results of all stormwater monitoring conducted during the year. If you have a monitoring waiver for one or more of the pollutant(s), please report "M" in the column(s)-see permit-Schedule B.3.</p> <p>Note 2: Non-detects must be reported as "ND" along with the applicable method detection limit in parentheses - e.g. ND (0.001).</p> <p>Note 3: If a stormwater sampling result exceeds any of the benchmark values, the permit registrant must, within 30 calendar days of receiving the sampling results, investigate the cause of the benchmark exceedance(s), review the SWPCP and submit an Action Plan for DEQ or agent approval.</p> <p>Note 4: For the 4th year of coverage under the permit that became effective on July 1, 2007, report the geometric mean value of the last 4 samples collected for each pollutant parameter, from each sampling point. If any of the 4 samples were not collected during this monitoring year, attach the past DMR form(s) that include the sample results. For non-detect sampling results, use 1/2 the detection limit to calculate the geometric mean. You are not required to report the geometric mean for pollutant(s) that have a monitoring waiver. The geometric mean value is automatically calculated if using the Excel version of the DMR form.</p> <p>Note 5: If a sampling event is missed or a sampling parameter is not analyzed or sampled, enter "NS" in each applicable column for that row.</p>
Geometric Mean (Note 4)									
Geometric Mean (Note 4)									
Geometric Mean (Note 4)									
Geometric Mean (Note 4)									
Permit Benchmark		5.5 - 9.0	130	10	0.1	0.4	0.6	406	

Name/Title Principal Executive Officer or Authorized Delegate

(Please Print)

Telephone:	Email:
------------	--------

I certify, under penalty of law, that this document and all attachments were prepared under my direct supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Sign here: _____ Date _____

See reverse side for additional visual monitoring requirements

Monthly Visual Observations

Record Visual Observations for Oil and Grease Sheen and Floating Solids:

Oil and Grease Sheen - No visible sheen allowed. Monthly observation when discharging. For months when no discharges occur, please write in "No Discharge" for that month.	Floating Solids (associated with industrial activities) – No visible discharge allowed. Monthly observation when discharging. For months when no discharges occur, please write in "No Discharge" for that month.
---	--

Date	Observations (please note the sampling point(s) name or number)
------	---

July

August

September

October

November

December

January

February

March

April

May

June

For facilities located within the following local jurisdictions, please submit one (1) copy of this report and laboratory results sheet(s) and QA/QC documentation to the local jurisdiction annually by July 31st:

Clean Water Services
Industrial Stormwater
2550 SW Hillsboro Hwy.
Hillsboro, OR 97123

City of Portland
Industrial Stormwater
Section
Water Pollution Control Lab
6543 N Burlington Ave.
Portland, OR 97203-5452

City of Eugene
Industrial Source Control
410 River Ave.
Eugene, OR 97404

For all other locations, please submit one (1) copy of this report and laboratory results sheet(s) and the QA/QC documentation to the appropriate DEQ regional office annually by July 31st:



DEQ Northwest Region Office
2020 SW 4th Ave., Suite 400
Portland, OR 97201
Phone: (503) 229-5263
Hours: 8 am - 5 pm

DEQ Eastern Region Office
475 NE Bellevue Dr., Suite 110
Bend, OR 97701
Phone: (541) 388-6146
Hours: 8 am - 5 pm

DEQ Western Region Office
165 East 7th Ave., Suite 100
Eugene, OR 97401
Phone: (541) 686-7838
Hours: 8 am - 5 pm

Appendix 14
Incident Report Form

INCIDENT # _____ - _____

**INCIDENT REPORT FORM
SCHNITZER STEEL INDUSTRIES, INC.
12005 NORTH BURGARD ROAD
PORTLAND, OR 97203**

1. TIME PROBLEM DISCOVERED: _____ DATE: _____
2. TIME PROBLEM STOPPED: _____ DATE: _____
3. TIME SPILL CLEANUP COMPLETED: _____ DATE: _____
4. APPROXIMATE LOCATION & TYPE OF INCIDENT (E.G., FIRE, EXPLOSION, SPILL):

5. MATERIAL SPILLED: _____
6. APPROXIMATE AMOUNT: _____ RQ: _____
7. SOURCE OF THE DISCHARGE: _____
8. CAUSE OF THE DISCHARGE: _____
9. AFFECTED MEDIA: _____
10. EXTENT OF INJURIES (IF ANY): _____

11. WHAT ARE POSSIBLE HAZARDS TO HUMAN HEALTH AND THE ENVIRONMENT? ____

12. ESTIMATED AMOUNT OF MATERIAL RECOVERED: _____
13. WHAT WAS DONE WITH RECOVERED MATERIAL? _____

14. ACTIONS TAKEN TO STOP, REMOVE, AND MITIGATE THE EFFECTS OF THE DISCHARGE:

15. WAS EVACUATION OF THE SITE NECESSARY? _____

INCIDENT # _____ - _____

16. NAME, ORGANIZATION, DATE/TIME CONTACTED CONCERNING THE INCIDENT:

17. WEATHER CONDITIONS: _____

18. ACTIONS TAKEN TO CORRECT THE CAUSE AND PREVENT FURTHER PROBLEMS:

19. UNUSUAL EVENTS AND AGENCY INSPECTIONS RELATING TO THIS EVENT:

20. AGENCY REPORTING: ☐ NOT A REPORTABLE SPILL

NRC: _____

OERS: _____

O-DEQ: _____

21. INCIDENT COST:

LABOR HOURS: _____ X _____ \$/HR X _____ = \$ _____
(# OF HRS) (AVERAGE RATE) (# OF EMPLOYEES)

SPILL MATERIAL: _____ @ _____ X _____ \$/GAL = \$ _____
(TYPE OF MATERIAL) (# OF GALLONS) (\$/GALLON)

CLEANUP MATERIAL: _____ @ _____ \$/ _____ = \$ _____
(TYPE OF MATERIAL) (QUANTITY) (UNITS)

CLEANUP MATERIAL: _____ @ _____ \$/ _____ = \$ _____
(TYPE OF MATERIAL) (QUANTITY) (UNITS)

ADMINISTRATIVE COSTS: _____

AGENCY FINES/FEES: _____

TOTAL INCIDENT COSTS: _____

NAME OF INCIDENT REPORTER: _____

TITLE: _____

TELEPHONE NUMBER: (____) _____

SIGNATURE

DATE

Appendix 15

Stormwater Pollution Control Plan (SWPCP) Checklist



DEQ Industrial Stormwater Permits

Stormwater Pollution Control Plan (SWPCP)

Checklist

Instructions: Complete this form and submit with SWPCP. Fill in the appropriate page number(s) indicating the location of information in the SWPCP. New requirements are highlighted and italicized.

Site Name:

File No.:

Permit Schedule		Requirement	Page #	Comments (For official use only)
SIC codes	Sch. E	<i>Provide primary and any secondary SIC Codes (in renewal application or in cover letter if already submitted application)</i>		
Signature	A.6.b	Signed and certified in accordance with 40 CFR 122.22.		
Title Page	A.7.a	Site Name		
		Site Owner or Operator		
		<i>Name(s) of the person(s) who prepared the plan.</i>		
		DEQ Permit File (not ORR #)		
		Contact Person Name and Telephone Number		
		Site Physical Address, including County		
		Site Mailing Address (if different)		
		Plan Date		
Site Description	A.7.b.iii*	Industrial activities conducted on-site.		
		Significant materials (include methods of storage, usage, treatment, and disposal).		
General Location Map	A.7.b.i	Site in relation to surrounding properties, transportation routes, surface waters, and other relevant features.		
Site Map (please identify clearly)	A.7.b.ii*	Drainage Patterns		
		Drainage and Discharge Structures (piping, ditches, etc.)		
		Drainage Area Outline for each Stormwater Outfall		
		Paved Areas, Equipment, Tanks, Buildings in each drainage area		
		Areas of Outdoor Manufacturing, Treatment, Storage or Disposal of Significant Materials		
		Stormwater Structural Control Measures		
		<i>Stormwater features to reduce flow or minimize impervious surfaces</i>		
		Material Loading and Access Areas		
		Used Oil, Hazardous Waste Treatment, Storage and Disposal Facilities		
		Location of Wells (including waste injection wells, seepage pits, and drywells)		

		Location of Springs, Wetlands and Surface Waterbodies (both on-site and adjacent to the site) <i>Location of Non-Stormwater Discharges</i> <i>Location of Sampling Points and Outfalls</i> <i>Location of spill prevention and cleanup materials</i>		
Potential Pollutants	A.7.b.iv*	Identify potential pollutants that could be present in stormwater for each drainage basin		
Impervious Area	A.7.b.vi	Estimates, by individual stormwater outfall, of impervious area including paved areas and building roofs.		
Receiving Waters	A.7.b.vii	Name(s) of the receiving water(s). If to a municipal storm sewer system include ultimate receiving waters and name of municipality.		
Monitoring Locations	A.7.b.viii	Identify discharge outfall(s) and sampling point(s) where stormwater monitoring will occur. If all outfalls are not monitored, include description of outfalls, data, and analysis supporting outfalls are representative according to Schedule B.2.c.		
Site Controls	A.7.b.v*	<i>Identify Best Management Practices to meet technology based requirements (Sch. A.1) and any applicable sector specific requirements (Sch.E):</i>		
		• <i>Minimize Exposure,</i>		
		• <i>Oil and Grease,</i>		
		• <i>Waste Chemicals and Material Disposal,</i>		
		• <i>Erosion and Sediment Control,</i>		
		• <i>Debris Control,</i>		
		• <i>Dust Generation and Vehicle Tracking,</i>		
		• <i>Housekeeping,</i>		
		• <i>Spill Prevention and Response,</i>		
		• <i>Preventative Maintenance,</i>		
		• <i>Employee Education, and</i>		
		• <i>Non-Stormwater Discharges</i>		
Procedures and Schedules	A.7.c *	Spill Prevention and Response Procedures. Include methods to prevent spills along with clean-up and notification procedures. Spill prevention plans may be substituted if stormwater is adequately addressed.		
		Preventative Maintenance Procedures. Include procedures for inspection, maintenance and repairs, and schedule for regular pick up and disposal of waste materials, and inspection for leaks and condition of drums, tanks and containers		
		Employee Education Schedule. Orientation w/in 30 days, education annually.		
Monitoring Info from Previous Permit	A.7.d	<i>Remove or update monitoring information if plan contains monitoring information from previous permit.</i>		

* Some facilities must meet sector specific requirements (Schedule E) and include additional information in SWPCP. If applicable, ensure that the SWPCP includes the sector specific information.

For Official Use Only

Date Received:

Plan Accepted N / Y

Notes:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Appendix 16
Spill Response Procedures

If there is an immediate threat to human life (e.g. a fire in progress or fumes overcoming workers), make an announcement to evacuate the building and call 911.

EMERGENCY RESPONSE GOAL: An effective response procedure during an oil or substance release incident is to keep the material separated from water to minimize migration and the resulting potential increase in human and environmental exposure.

EMERGENCY CONTACTS:

A. SPCC COORDINATOR

Corey Bailey
503-737-6848
503-849-9159

B. ASSISTANT SPCC COORDINATOR

Larry Snodgrass
503-286-6903
503-209-9649

C. PORTLAND FIRE AND RESCUE

503-823-3333 or **911**

D. LEGACY EMMANUEL HOSPITAL

2801 N GANTENBEIN AVENUE
PORTLAND, OREGON 97227

503-413-2200 or **911**

E. OREGON EMERGENCY RESPONSE SYSTEM

800-452-0311

F. NATIONAL RESPONSE CENTER (U.S. COAST GUARD)

800-424-8802

G. OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY, NORTHWEST REGION

503-229-5263

H. ENVIRONMENTAL PROTECTION AGENCY, REGION 10

1.866.EPASPILL (1.866.372.7745)

Discovery of a Release

The person discovering a release of material from a container, tank, or operating equipment should immediately report the incident to the Supervisor and the SPCC Coordinator.

Extinguish any nearby sources of ignition. Assure that no danger to human health exists. Unless the spilled material is identified as nonflammable and noncombustible, all potential sources of ignition in the area should be turned off, extinguished, or removed. Vehicles engines should be turned off. If the ignition source is stationary, attempt to move spilled material away from ignition source. Avoid sparks and movement creating static electricity.

Attempt to stop the release at its source. Assure that no danger to human health exists. Simple procedures (e.g., turning valves, plugging leaks) may be attempted by the discoverer if there is a reasonable certainty of the leak's origin. All other efforts to control leaks should be supervised by the SPCC Coordinator or Assistant SPCC Coordinator.

Initiate spill notification and reporting procedures. Request the assistance of the fire department's hazardous materials response team if an uncontrollable spill has occurred and/or if the spill has migrated beyond the facility boundary. The SPCC Coordinator will perform necessary corporate and external regulatory notifications.

Containment of a Release

If material is released outside the containment areas, the material must be accurately identified and appropriate control measures taken in the safest possible manner. Consult the MSDS notebook in the facility office. To contain a release, follow these procedures:

Attempt to stop the release at the source. If the source of the release has not been found; if special protective equipment is necessary to approach the release area; or if assistance is required to stop the release, call the fire department to halt the discharge at its source. Site personnel should remain available to guide the fire department's efforts.

Contain the material released into the environment. Following proper safety procedure, contain the spill by placing absorbent materials and dikes using shovels and brooms. If necessary, place booms around catch basins or drains to avoid oils entering the water treatment system. A spill kit that includes adsorbent material, containment socks, rags, plastic, and a salvage drum is located in the facility. Consult applicable MSDSs for material compatibility, safety, and environmental precautions.

Continue the notification procedure. Inform the SPCC Coordinator of the release (the Coordinator shall perform subsequent notification as appropriate).

Spill Cleanup and Reporting

Once the spill situation is under control and the release has been contained, facility personnel should commence the cleanup and reporting procedure described in Section 6. Obtain outside contractors to clean up the spill, if necessary.

Schnitzer Steel Industries, Inc – International Terminals

SPILL RESPONSE FLOWCHART

